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ABSTRACT

This document summarizes health care economics syllabi and programs in English-speaking countries according to target audience, level, and degree of intensity of health care economics training. The report is for teachers of health care economics as well as for general economists interested in this field. The first two sections examine typical syllabi and textbooks in a range of health care economics courses in the United Kingdom and the United States respectively. The third section features representative syllabi for health care economics courses taught in medical schools in six countries: England, Scotland, Canada, Australia, New Zealand, and the United States. A glossary of the more common terms in health care economics also is included. (DB)

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COMPENDIUM OF ENGLISH LANGUAGE COURSE SYLLABI AND TEXTBOOKS IN HEALTH ECONOMICS

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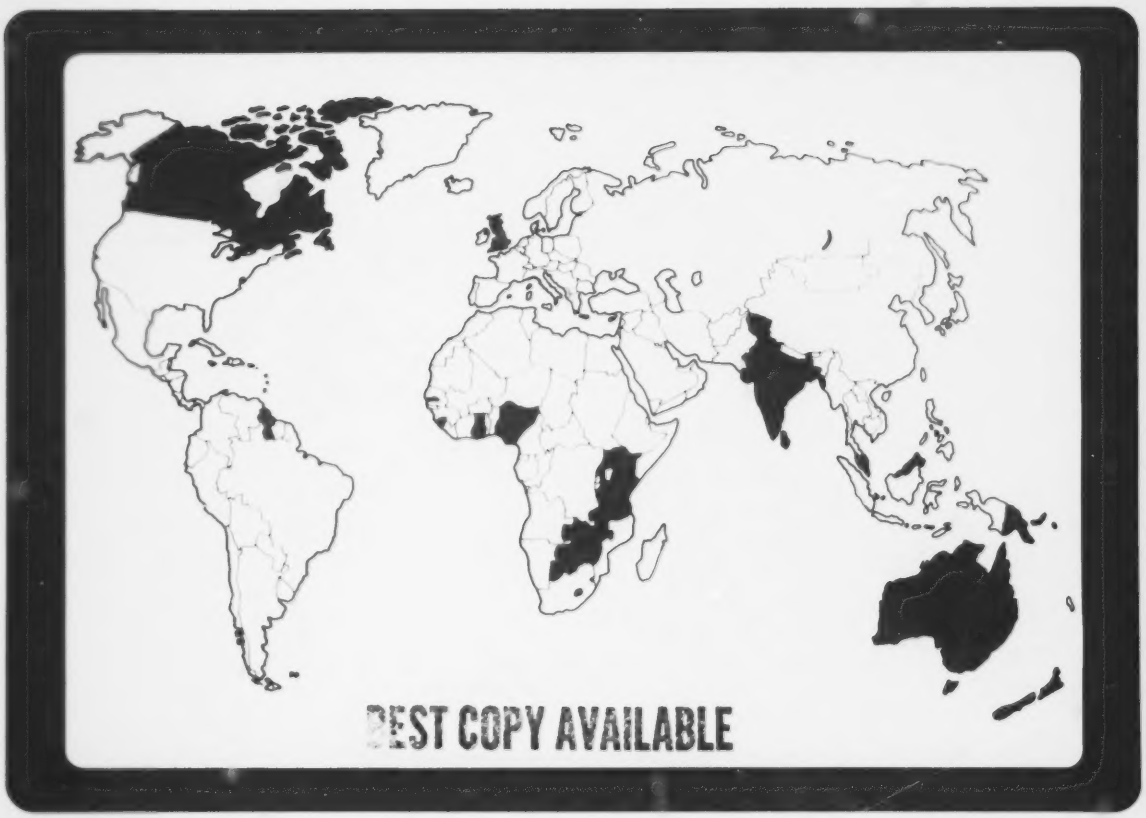

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COMPENDIUM OF ENGLISH LANGUAGE COURSE SYLLABI AND TEXTBOOKS IN HEALTH ECONOMICS

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including
A REVIEW OF ENGLISH LANGUAGE TEXTBOOKS IN HEALTH ECONOMICS

by
Alistair McGuire and Anne Ludbrooke
University of Aberdeen, Scotland

and
A GLOSSARY OF THE MORE COMMON TERMS IN HEALTH ECONOMICS

by
Professor A. J. Culyer
University of York, England

1989

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TARGET 34

Management of planning and resource allocation

Before 1990, Member States should have managerial processes for health development geared to the attainment of health for all, actively involving communities and all sectors relevant to health and, accordingly, ensuring preferential allocation of resources to health development priorities.

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EDUCATION
SCHOOLS, MEDICAL
TEACHING MATERIALS
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NEW ZEALAND
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FOREWORD

Health economics has recently become popular, perhaps to excess, although it is still a fairly young discipline. One of the projects of the World Health Organization Regional Office for Europe in this field is to provide internationally useful information in existing education and training programmes in health economics.

The Survey on Education and Training Programmes in Health Economics (still available for US$10, or its equivalent in Pounds Sterling, Swiss Francs or Danish Kroner) had shown that health economics is taught in a variety of academic and other settings in Europe, North America and elsewhere. The Study on the Development of Health Economics Training (still available for US$15, or its equivalent in Pounds Sterling, Swiss Francs or Danish Kroner) is a practical problem-oriented book of health economics training material on the Relationship between the health sector and the economy, Health policy implementation and performance, Encouraging efficient behaviour by consumers and providers, Priority setting and strategy selection, and Equity, equality and reduction of status differentials. It is already widely used in the training of health care providers and administrators.

There is surely a place for more methodology-oriented syllabi and course programmes. As most of the textbooks used are in the English language, I have asked Mona Hersh-Cochran and Kendall Cochran to collect and analyse material from key teachers in English-speaking countries. The result is this report by teachers for teachers of health economics as well as for general economists who would like to know what the excitement concerning health economics is about. This report summarizes typical syllabi and programmes according to target audience, level and degree of intensity of health economics training.

As important value added, Alan Williams has contributed his thoughts on the place of health economics in medical education, Alistair McGuire and Anne Ludbrooke have reviewed a few of the textbooks and Anthony Culyer has added a glossary of common terms that amounts to an excellent summary of the subject.

My thanks go also to Aino Winther-Pedersen who helped to make the format of presentation more uniform, although no attempt has been made to suppress national and cultural differences.

Herbert Zöllner
WHO Regional Officer for Health Economics

INTRODUCTION

In an earlier publication, Survey on education and training programmes in health economics, health training personnel in some 26 countries responded to our questionnaire and supplied the detailed information covering a myriad of courses and combinations of courses by various universities, schools of medicine, specialized community service programmes, schools of public health, health departments and other governmental agencies as well as professional associations. There are a number of directions from which health economics may be taught - from a full curriculum leading to a graduate degree in health economics all the way down to a few lecture hours devoted to it as part of a social welfare economics course or possibly only part of one lecture in a medical school course.

We have now expanded that initial survey to collect syllabi from various institutions in the British Commonwealth and the United States. From this relatively broad spectrum, we have developed a typical representative syllabus for each category of health economics curriculum. The categories included range from a full two semester graduate course to a several hour seminar for practicing physicians.

An outline of possible topics taught for each category is listed as a guide to the overall course content. Following this outline is the representative syllabus for that category.

Next are some general observations about the teaching of health economics in the medical school curriculum by Alan Williams of the University of York, followed by a listing of medical school subjects and syllabi.

Then, there is a review of the most widely used current textbooks in health economics by Alistair McGuire and Anne Ludbrook of the University of Aberdeen.

This publication concludes with a glossary of health economics terms compiled by A.J. Culyer of the University of York.

It is hoped that this material will be of value not only to those currently teaching health economics on the university or advanced level, but also to those who are desirous of introducing a course in health economics, whether it be on the undergraduate, graduate, or postgraduate level.

Mona S. Hersh-Cochran, Texas Woman's University
Kendall P. Cochran, University of North Texas

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Edgar D. Charles, University of Alabama at Birmingham
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Jane Chetwynd, Christchurch School of Medicine
A.J. Culyer, University of York
Swati Desai, Fordham University
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J.D. Roberts, London School of Hygiene and Tropical Medicine
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Alan Williams, University of York
Barbara Wolfe, University of Wisconsin-Madison
Virginia B. Wright, Eastern Kentucky University

BRITISH COMMONWEALTH

BRITISH COMMONWEALTH

A. Undergraduate level
two semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Health, health care and epidemiology
Health and health care as economic goods
Equity
Health service planning and organisation
Cost-benefit analysis: theory
Cost-benefit analysis: practice
Need and demand
The theory of the demand for health care
Structure of the supply of health care
The hospital as an economic agent
Review

Most commonly used textbooks:

J.G. Cullis and P.A. West, The economics of health, Martin Robertson,1979.

BRITISH COMMONWEALTH

A. Undergraduate level
two semester course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

The economics of health and social policy

The main textbook is J.G. Cullis and P.A. West, The economics of health, Martin Robertson, 1979.

Other recommended books are:

A.J. Culyer, Need and the national health service, Martin Robertson, 1976.

This contains a lot of very useful ideas on and about health economics. Frequent references will be made to it. Buy it even if you think you can't afford it.

G.H. Mooney, The valuation of human life, Macmillan, 1977.

This is a comprehensive review of the issues of valuation of life but also covers other aspects of health economics. It is out of print.

M.H. Cooper and A.J. Culyer (eds), Health economics: selected readings, Penguin, 1973.

This contains a very useful collection of readings. It is now, unfortunately, out of print.

Attached is the course outline for the remainder of the course, together with reading lists specific to individual seminar sessions.

The health component of the course will be structured as follows:

Seminar	Topic
1	Health, health care and epidemiology
2	Health and health care as economic goods
3	Equity
4	Health service planning and organisation
5	Cost-benefit analysis: Theory
6	Cost-benefit analysis: Practice
7	Need and demand
8	The theory of the demand for health care
9	Structure of the supply of health care
10	The hospital as an economic agent
11	Review

Seminar 1 Introduction, health, health care and epidemiology

*A.L. Cochrane, Effectiveness and efficiency: Random Reflections on health services, London, Nuffield Provincial Hospitals Trust, 1972.

*Cullis and West, chapters 1 and 2.

*Culyer, Need and the NHS, chapters 1, 4 and 5.

*Culyer, Political economy of social policy, chapter 8.

A.J. Culyer, The nature of the commodity 'health care' and its efficient allocation. O.E.P., 1971, 23 (2) 189-211. (Also in *Cooper and Culyer)

*A.J. Culyer, R.J. Lavers and A. Williams, Social indicators: health. Social Trends, vol. 1 (2) 1971.

*W.W. Holland (ed), Evaluation of health care, Oxford University Press, 1983, Introduction and chapters 2 and 4.

K. Lee and A. Mills, The role of economists and economics in health service planning, in *K. Lee (ed), Economics and health planning, Croom Helm, London, 1979.

*T. McKeown and C. Lowe, An introduction to social medicine, Blackwell Scientific Publications, Oxford, 1974.

S.J. Mushkin, Health as an investment, J.P.E., 1962, 70, 5 (2), 129-57. *Office of health economics, Measurement of health, O.H.E., London, 1985.

Seminar 2 Health and health care as economic goods

K.J. Arrow, Uncertainty and the welfare economics of medical Care, AER, Vol. 53, 1963, 941-73, reproduced as 'The welfare economics of medical care' in *Cooper and Culyer.

J.Broome, Trying to value a life, Journal of Public Economics, February, 1978, *Cullis and West, chapter 2.

A.J. Culyer, Medical care and the economics of giving, Economica, 1971, 38 (151), 295-303.

A.J. Culyer, The nature of the commodity 'health care', OEP, vol. 23, 1971, 189-211. (Also on *Cooper and Culyer.)

A.J. Culyer, Need and the NHS, chapters 3 and 7.

M.W. Jones-Lee, Trying to value a life: Why Broome does not sweep clean, Journal of Public Economics, October, 1979.

M.W. Jones-Lee, M. Hammerton and P.R. Philips, The value of safety: results of a national sample survey, Economic Journal, 95, March 1985, 49-72.

J.Linnerooth, Murdering statistical lives...? in The value of life and safety ed. M.W. Jones-Lee, North Holland, Amsterdam, 1982.

E.J. Mishan, Cost benefit analysis, George Allen and Unwin, 1971, chapters 22 and 23.

*G.H. Mooney, The valuation of human life, Macmillan, 1977.

L. Needleman, Valuing other people's lives, Manchester School, 309-342, December 1976.

*T.C. Schelling, The life you save may be your own, in Problems in public expenditure analysis, ed. S.B. Chase, Brookings Institute, 1968.

B.A. Weisbrod, Collective-consumption services of individual consumption goods, Q.J.E., August, 1964.

R. Zeckhauser, Uncertainty and the need for collective action. In Public expenditure and policy analysis, eds. R.H. Haveman and J. Margolis, Markham, 1970, 96-116.

Seminar 3 Equity

*M.J. Buxton and R.E. Klein, allocating Health Resources: a commentary on the report of the resource allocation working party, HMSO, 1978.

*D. Collard, Altruism and economy, Martin Robertson, Oxford, 1981, Ch. 13.

*A.J. Culyer, Need and the NHS, Chapter 7.

J. Le Grand, The distribution of public expenditure: the case of health care, Economica, 45 (May), 1978.

*G.H. Mooney, Equity in health care: Confronting the confusion, HERU discussion paper 11/82.

*G.H. Mooney, The NHS: Caring about caring, HERU discussion paper, 06/83.

A.K. Sen, Rational fools: a critique of the behavioural foundations of economic theory, Philosophy and Public Affairs, 6, 1976-7, 317-44. Reproduced in F. Hahn and M. Hollis, Philosophy and economic theory, Oxford University Press, Oxford, 1979.

*Sharing resources for health in England, report of the resource allocation working party, DHSS, 1976.

SHHD, Scottish health authorities revenue equalisation (SHARE), HMSO, 1977. (Official Publication: Ref SHD 77-3).

*P. Townsend and N. Davidson, Inequalities in health, Penguin, 1982.

P. West, Theoretical and practical equity in the NHS, Social Science and Medicine, Vol. 15, 1981, 117-22.

Seminar 4 Health service planning and organisation

A.J. Culyer, A. Maynard and A. Williams, Alternative systems of health care provision: an essay on motes and beams, in M.Olson (ed) A new approach to the economics of medical care, Washington D.C., American Enterprise Institute, 1981.

*A.J. Culyer, Need and the NHS, chapter 7.

A.C. Enthoven, Consumer choice health plan, The New England Journal of Medicine, 298 (12 and 13), 1978, 650-658 and 709-720.

A.K. Maynard, The regulation of public and private health care markets, in G. McLachlan and A. Maynard (eds). The public/private mix for health, Nuffield Provincial Hospitals Trust, 1982.

A.K. Maynard and A. Ludbrook, What's wrong with the NHS? Lloyd's Bank Review, October 1980.

U. Reinhardt, Health insurance and cost containment policies: the experience abroad, in M. Olsen (ed), A new approach to the economics of health care, American enterprise institute, Washington and London, 1981.

A.A. Scitovsky, The use of medical services under prepaid and fee-for service group practice, Social Science and Medicine, 15C, 1981, 107-116.

Seminars 5 and 6 Cost-benefit analysis, cost-effectiveness analysis, and prevention

R.J. Arnould and M. Grabowski, Auto safety regulation: an analysis of market failure, Bell Journal of Economics, 1981; 12 (Spring); 27-48.

*J.J. Artells Herrero, et al, A cost-effectiveness analysis of ante-natal care. University of Aberdeen, 1982, HERU discussion paper 09/82.

M.J. Buxton and R.R. West, Cost-benefit analysis of long-term haemodialysis for chronic renal failure, British Medical Journal, 1975, 2, 376-379.

*D. Cohen, Prevention as an economic good. University of Aberdeen, 1981, HERU Discussion Paper 02/81.

*D. Cohen, The benefits and costs of a ban on the sale of non-pasteurised milk in scotland. University of Aberdeen, 1982, HERU discussion paper 08/82.

D. Cohen, Health education as a demand concept. International Journal of Social Economics, 1983; 10(5): 52-62.

*D. Cohen, Economic consequences of a non-smoking generation. University of Aberdeen, 1984, HERU discussion paper 06/84.

*D. Cohen and P. Dick, An evaluation of psychiatric care: Day hospital versus in-patient care. University of Aberdeen, 1984, HERU discussion paper 02/84.

*D. Cohen and J. Henderson, A minister for prevention. University of Aberdeen, 1983, HERU discussion paper 02/83.

D. Cohen and G. Mooney, Prevention goods and hazard goods: a taxonomy. SJPE, 1984; 31 (1): 92-99.

*M.F. Drummond, Principles of economic appraisal in health care, Oxford Medical Publications, Oxford, 1980.

M.F. Drummond, Welfare economics and cost benefit analysis in health care, SJPE, vol. 28, 1981, 125-45.

K. Dunnell and L. Ide, An attempt to assess the cost of home care, In *D.S. Lees and A. Shaw. Impairment, disability and handicap. Heinemann, 1974.

*L.A. Fisher, Effectiveness and efficiency in health education. University of Aberdeen, 1980, HERU discussion paper 09/80.

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R.N. Grosse, Problems of resource allocation in health. In R.H. Haveman and J. Margolis (eds), Public Expenditure and policy analysis, Markham, 1970, 518-48.

*J.B. Henderson, The cost-benefit approach in occupational health. University of Aberdeen, 1985,HERU discussion paper 11/85.

*J.B. Henderson et al, The evaluation of new services: possibilities for preventing congenital toxoplasmosis. University of Aberdeen, 1982, HERU discussion paper 02/82.

H.E. Klarman, J.O. Francis and G.D. Rosenthal, Cost effectiveness analysis applied to the treatment of chronic renal disease, Medical Care, Jan-Feb, 1968, 48-54. (Also in *Cooper and Culyer.)

H.E. Klarman, Syphilis control programmes. In R. Dorfman, Measuring benefits of government investments, The Brookings Institute, 1965.

L. Lave and W. Weber, A benefit cost analysis of auto safety features. Applied Economics, vol. 2(4), 1970, 265-275.

A. Ludbrook, A cost-effectiveness analysis of the treatment of chronic renal failure, Applied Economics, vol. 13, 1981, 337-50.

A. McGuiness and K. Cowling, Advertising and the aggregate demand for cigarettes. European Economic Review, 1975; 6: 311-28.

G.H. Mooney, Planning for balance of care of the elderly. SJPE, 1978; 25(2): 149-64.

C. Nash, et al, An evaluation of cost-benefit criteria, SJPE, vol. 22(2) June, 1975.

P. Sainsbury and J. Grad, The cost of community care and the burden on the family of treating the mentally ill at home. In *D.S. Lees and A. Shaw (eds), Impairment, disability and handicap, Heinemann, 1974.

P.R. Simpson, J. Chamberlain and H.S.E. Gravelle, Choice of screening tests, Journal of Epidemiology and Community Health, 1978, 32, 166-170.

R. Sugden and A. Williams, The principles of practical cost benefit analysis, Oxford University Press, Oxford, 1978, especially chapters 13 and 16.

*B. Yule and D. Cohen, Appraising laundry services in Fife. University of Aberdeen, 1985, HERU series of option appraisal papers, SOAP 8.

Seminar 7 Need and Demand

M.H. Cooper, The economics of need: the experience of the British health service; in *M. Perlman (ed), The economics of health and medical care, 89-107.

*Cullis and West, chs. 4 and 5.

*Culyer, Need and the NHS, chs. 3 and 7.

R.G. Evans, Supplier-induced Demand: some empirical evidence and implications, in *M. Perlman (ed) The economics of health and health care.

K. Lee, Need versus Demand: The planner's dilemma, in *K. Lee (ed), Economics and health planning, 45-69.

*G. Mooney, Are medical ethics and economics incompatible?, HERU discussion paper no. 03/83.

*D.W. Parkin and B.F. Yule, Economic interpretations of supplier-induced demand. HERU discussion paper no. 03/84.

A. Williams, Need - An economic exegesis, in Culyer and Wright, Economic aspects of health services, Martin Robertson, Oxford, 1979.

Seminar 8 The theory of the demand for health

*B. Abel-Smith, Value for money in health services, ch 2, Heinemann, London, 1976.

K. Arrow, Uncertainty and the welfare economics of medical care, AER, vol. 53, 1963, 941-973 (Also in *Cooper and Culyer).

*Cullis and West, Chs. 4 and 5.

M. Grossman, On the concept of health capital and the demand for health, JPE, Vol. 80, 1972.

*A. Wagstaff, The demand for health: theory and policy applications, HERU discussion paper 06/85.

Seminar 9 The structure of the supply of health care

*Cullis and West, ch. 6.

A.J. Culyer, On the relative efficiency of the national health service, Kyklos, 1972, Vol. 25, 266-287.

A.J. Culyer, The nature of the commodity 'health care', OEP, Vol. 23, 1971, 189-211 (Also in Cooper and Culyer).

A.J. Culyer, The market vs the state, in McLachlan (ed) Problems and progress in medical care (7th series), OUP, London, 1972.

J. Harris, The internal organization of hospitals: some economic implications, Bell Journal of Economics, vol. 8, 1977, 467-482.

*A. McGuire and G. Mooney, Ethics and property rights in the NHS hospital, HERU discussion paper 02/85.

*G. Mooney, The NHS: Caring about caring, HERU discussion paper 06/83.

J.P. Newhouse, Towards a theory of non-profit institutions: an economics model of the hospital, AER, vol. 60, 1970.

Seminar 10 The hospital as economic agent

*Cullis and West, ch. 7.

J. Harris, The internal organization of hospitals: some economic implications, Bell Journal of Economics, Vol. 8, 1977, 467-482.

P. Jacobs, A survey of economic models of the hospital, Inquiry, Vol. 12, 1974.

A.W. Jenkins, Multiproduct cost analysis: service and case-type cost equations for Ontario hospitals, Applied Economics, Vol. 12, 103-113.

A. McGuire, The theory of the hospital: a review of the models, Social Science and Medicine, Vol. 20, 1177-1184, 1985.

*A. McGuire, Methodological considerations of hospital production and cost function: relationships to efficiency, HERU discussion paper No. 08/85.

M. Tatchell, Measuring hospital output, Social Science and Medicine, Vol. 17, 871-83, 1983.

BRITISH COMMONWEALTH

B. Undergraduate level
two semester course
less than 80% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction
  Scope and nature of social policy
  Characteristics of the welfare state
Positive theories of distribution
Altruism and externality
  Utility interdependence
  General vs specific externality
Efficiency and transfer payments
  Principles of efficiency
  Price reduction vs. income transfer
  In-kind transfer
  Voucher schemes
Insurance and market failure
  Theory of expected utility maximisation
  Case for government involvement
  Problem of moral hazard
  Subsidized health insurance
  Public provision of health care
Output measurement in health care
  Theoretical basis
  Application of measures in decision making
Income maintenance policy
  Poverty trap and disincentives to work
  Negative income tax - problems and possibilities
Supplier induced demand
Human capital
  Income determination
  Health determination
  Health production function
Competition in the health care market
Cost benefit and cost effectiveness analysis
Economics of care for the elderly
Substance abuse and addiction
  Drugs
  Alcohol
  Tobacco
Housing market
  Equity and efficiency
  Subsidised demand alternative policies

Most Commonly used textbooks

A.B. Atkinson (ed)., Wealth, income and inequality, Oxford University Press, 1980.

A.J. Culyer, The political economy of social policy, Martin Robertson, 1980.

J. LeGrand, The strategy of inequality, George Allen and Unwin, 1982.

BRITISH COMMONWEALTH

B. Undergraduate level
two semester course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

ECONOMICS OF SOCIAL POLICY

Lecture outline and reading list

There is no set text for the course, but you will find that the following contain useful material:

A.B. Atkinson (ed.), 1980, Wealth, income and inequality, Oxford.

*A.J. Culyer, 1980, The political economy of social policy, Martin Robertson.

J. Le Grand, 1982, The strategy of equality, George Allen and Unwin.

The reading list is not comprehensive, and you are expected to read around the subject as much as possible. The text by Culyer (1980) will be a useful starting point.

Lecture 1. Introduction: The scope and nature of social policy

(a) Data and characteristics of the welfare state

(b) Positive theories of redistribution

A.J. Culyer (1980), The political economy of social policy, Martin Robertson, Chs. 1-3.

A.J. Culyer (1981), Economics, social policy and social administration, Journal of Social Policy, 10, 311-329.

J.D. Rodgers (1974), Explaining income redistribution, in M. Hochman and C. Peterson (eds.), Redistribution through public choice, Columbia U.P., 165-205.

Lecture 2. Altruism and externality

(a) The theory of utility interdependence

(b) General-vs-specific externality

Culyer (1980), op. cit., Ch. 4, part B.

Rodgers (1974), op.cit. (lecture 1).

*L. Rosenthal (1983), Subsidies to the personal sector, in R. Millward et al., Public sector economics, Longman, 78-128 (especially 95-100).

Lecture 3. Efficient transfers

(a) Principles of efficiency

(b) Price reduction-vs-income transfer

(c) In-kind transfers

Culyer (1980), op. cit., Ch. 3 appendix.

*M.V. Pauly (1970), Efficiency in the provision of consumption subsidies, Kyklos, 23, 33-57.

L. Rosenthal (1983), op. cit. (lecture 2) section 2.

Lecture 4. Vouchers as a transfer mechanism

(a) Principles of voucher schemes

(b) Applications: food stamps in the U.S., education.

E.K. Browning and J.M. Browning (1983), Public finance and the price system, second edition, Macmillan, Ch. 5 (food stamps in the U.S.).

Culyer (1980), op. cit., Ch. 3 appendix, and Ch. 9, 246ff for education vouchers.

A.K. Maynard (1975), Experiment with choice in education, IEA Hobart paper 64.

*E.O. Olsen (1971), Some theorems in the theory of efficient transfers, Journal of Political Economy, 79, 166-176.

L. Rosenthal (1983), op. cit. (lecture 2) section 2 and section 7 (food vouchers).

Lecture 5. Insurance and market failure

(a) The theory of expected utility maximisation

(b) The case for government involvement

Culyer (1980), op. cit., Ch. 2, part C.

D. Laidler (1981), Introduction to microeconomics, second edition, Philip Allan, Ch. 7 (for revision of the relevant theory).

Lecture 6. The problem of moral hazard: subsidised health insurance

(a) Evidence of U.S. experience with medicare and medicaid

(b) The role of public provision in health care

Browning and Browning (1983), op. cit. (lecture 4), Ch. 6 (for description of the U.S. scheme).

Culyer (1980), op. cit., Ch. 8, especially part D.

*J.A. Meyer (ed.) (1983), Market reforms in health care, American Enterprise Institute. See especially papers by Phelps, and Ginsburg (ISER library).

Lecture 7. Output measurement in health care

(a) Theoretical basis

(b) Application of measures in decision making

Culyer (1980), op. cit., Ch. 8, especially part C.

A.J. Culyer (1983), Health indicators, Martin Robertson. See especially paper by Rosser.

*A.J. Culyer and K.G. Wright (1978), Economic aspects of health services, Martin Robertson. Especially papers by Culyer and Wright.

Lecture 8. The poverty trap: income maintenance policy

(a) The poverty trap and disincentives to work

(b) Negative income tax. Problems and possibilities

A.B. Atkinson and J.S. Flemming (1978), Unemployment, social security and incentives, Midland Bank Review, Autumn, 6-16.

A.B. Atkinson (1983), The Economics of inequality, second edition, Oxford. Especially Ch. 11.

*W. Beckerman (1979), The impact of income maintenance payments on poverty in Britain, 1975, Economic Journal, 89, 261-279.

*A.W. Dilnot, J.A. Kay and C.N. Morris (1984), The reform of social security, Institute for fiscal studies, Oxford, Chs. 2-3.

Lecture 9. Supplier-induced demand (SID)

(a) Asymmetry in information

(b) Neoclassical and SID theory

(c) Testing the theories

M. Friedman (1962), Capitalism and freedom, Chicago University Press.

K.A. Leffler (1978), The economics of physician licensure, Journal of Law and Economics.

C.J. Tushy and A. Wolfson (1977), The political economy of professionalism: a perspective, in M.J. Trebilcock (ed.) Four aspects of professionalism, Consumer research council Canada, Ottawa.

Lecture 10. Human capital and income determination

(a) The supply and demand of human capital

(b) Competing theories and evidence

(c) Intergenerational effects

A.B. Atkinson (1984), Wealth, income and inequality, 2nd edition, Chs. 8, 9, 10, 11 and 16.

A.B. Atkinson, A.K. Maynard and C.G. Trinder, Parents and children, Heinemann, 1983.

A.B. Atkinson (1984), The economics of inequality, 2nd edition.

G.S. Becker, Human capital (2nd ed.).

Lecture 11. Human capital and health determination

(a) The health production function

(b) The Grossman model

(c) Evidence and policy implications

J.G. Cullis and P.E. West, The economics of health, Martin Robertson, Oxford, 1979, 76-81.

A.J. Culyer, P.E.S.P., 212-8.

Lecture 12. Competition in the health care market

(a) The nature of the market

(b) Plans for change

(c) Evidence and policy

A. Enthoven (1981), Health plan, Addison-Wesley.

A. Enthoven, 3 articles in New England Journal of Medicine, March and June 1978.

A. Enthoven (1985), Reflections on the management of the NHS, Nuffield Provincial Hospitals Trust.

Lecture 13. Cost-benefit and cost-effectiveness analysis in health care

(a) Cost-benefit, cost-effectiveness and cost-utility analysis

(b) The problems of executing CBA/CEA/CUA

(c) The problems involved in using findings

M.F. Drummond, Principles and Case studies (two books), in Economic appraisal in health care, O.U.P., 1980 and 1981.

S. Hagard et al. (1976), Screening for spina bifida cystica - a cost benefit analysis, British Journal of Preventive and Social Medicine, 30, 40-53.

K.V. Lowson et al., Costing new services: long term domiciliary oxygen therapy, Lancet, May 23, 1981, 11146-9.

I. Russell et al. (1972), Day-case surgery for hernias and haemorrhoids - a clinical, social and economic evaluation, Lancet, April 16, 844-7.

J.L.G. Thomson (1977), Cost-effectiveness of an EMI brain scanner - a review of a 2-year experience, Health Trends, 9, 16-19.

A. Williams (1985), The economics of CABG, British Medical Journal, August 3rd.

Lecture 14. The economics of caring for the elderly

(a) The supply and demand for care

(b) Is it efficient?

(c) Can it be improved?

A. Maynard and J.A.A. Smith (1983), The elderly: Who cares? Who pays?, Nuffield Provincial Hospitals Trust.

G.A. Mooney (1978), Planning for the balance of care of the elderly, Scottish Journal of Political Economy, 149-64.

K.G. Wright, et al. (1981), Costing care: the costs of alternative patterns of care for the elderly, Sheffield University Joint Unit For Social Services Research.

Lecture 15. Addiction to drugs, alcohol and tobacco

(a) Modelling demand

(b) The characteristic of supply

(c) Addiction and health

R.D. Blair and R. J. Vogel, Heroin addiction and urban crime, Public Finance Quarterly, 1, 457-77.

M. Grant, M. Plant and A. Williams (1983), Economics and alcohol (read e.g. Weedon, Walsh, Cook and McGuinness).

J. Holahan (1973), The economics of the control of the illegal supply of heroin, P.F.Q., 1, 467-77.

S. Rothenberg (1968), The clandestine distribution of heroin: its discovery and suppression, J.P.E., 76, 8407.

A. Wagstaff and A. Maynard (1986), The consumption of illicit drugs in the U.K., British Journal of Addiction, October.

Lecture 16. The housing market: equity and efficiency

(a) Subsidised demand

(b) Alternative policies

(c) The obstacles to change

S.T. Charles (1982), Council house sales, Soc. Pol. and Administration, 16, 104-14.

C. Edwards and J. Posnett (1980), The opportunity cost of the sale of LA rented accommodation, Urban Studies, 17, 45-52.

J. Le Grand, Strategy for Equality (Ch. 5).

A.K. Maynard, in D. Gowland (ed.), Modern economic analysis II (ch. 10).

R. Robinson, Housing economics and public policy (esp. Ch. 9).

J. Sutton and C. Whitehead (1982), The sale of council houses: a cautionary note, App. Ecs., 14, 295-303.

ECONOMICS OF SOCIAL POLICY

Seminar programme

AUTUMN TERM

Seminar 1: Altruism and the welfare state

Evaluate the relative merits of the theory of utility interdependence as an explanation of the main characteristics of the welfare state.

A.J. Culyer (1980), The political economy of social policy, Martin Robertson, Ch. 4.

A.J. Culyer and John Posnett (1985), Would you choose the welfare state?, Economic Affairs, 5, 40-42 (comment on Sugden and rejoinder).

J.D. Rodgers (1974), Explaining income redistribution, in Hochman and Peterson (eds.), Redistribution through public choice.

R. Sugden (1984), Who cares?, Institute of economic affairs, occasional paper 67.

Seminar 2: Theory of efficient transfers

"One may as well give the poor person cigarettes as warm clothes ..." (M.V. Pauly, 1970)

Critically evaluate this proposition in the light of: (a) the possible objective of donors in giving the warm clothes to the poor, and (b) the alternative means available to achieve this objective.

A.J. Culyer (1980), op. cit. (seminar 1), Ch. 3.

M.V. Pauly (1970), Efficiency in the provision of consumption subsidies, Kyklos, 23, 33-57.

L. Rosenthal (1983), Subsidies to the personal sector, in Millward et al., Public sector economics, Longman.

Seminar 3: Vouchers in social policy

Assess the merits of a voucher scheme for the finance of education in the light of alternative financing mechanisms.

N.B. Be careful to specify the objectives of a voucher scheme and its theoretical properties.

A.K. Maynard (1975), Experiment with choice in education, Institute of economic affairs, Hobart paper 64. (Other references to specific schemes will be found in the bibliography.)

E. Olsen (1971), Some theorems in the theory of efficient transfers, Journal of Political Economy, 79, 166-176.

L. Rosenthal (1983), op. cit., seminar 2.

Seminar 4. Health care: finance and delivery

The NHS or the market in health?

(a) What are the objectives?

(b) What are the advantages/disadvantages of state-ownership as a means to what end?

(c) What are the advantages/disadvantages of state-finance?

A.J. Culyer (1980), op. cit., Ch. 8.

A. Maynard and A. Williams (1984), Privatisation and the national health service, in J. Le Grand and R. Robinson (eds.), Privatisation and the welfare state, Allen and Unwin.

G. McLachlan and A. Maynard (eds.) (1982), Public private mix for health, Nuffield Provincial Hospitals Trust. (Especially papers by Culyer and Maynard.)

SPRING TERM

Seminar 5: Income maintenance

Is negative income taxation the answer to the problem of poverty? If not, what is?)

(a) What types of NIT appear in the literature?

(b) What problems exist in NIT schemes?

(c) What alternatives are there to NIT?

See references to lecture 8.

A.W. Dilnot, J. A. Kay and C. N. Morris (1984), The reform of social security, Institute for fiscal studies. (Especially chs. 2-3.)

R. Ferber and W. Hirsch (1982), Social experimentation and economic policy, Cambridge U.P (Especially chs. 4-6.)

Institute for fiscal studies (1978), The structure and reform of direct taxation (the Meade report), ch. 13.

Seminar 6: Economic evaluation

Is economic evaluation in health care an essential decision making tool or "an insidious poison in the body politick"?

References to Lecture 13.

A. Williams (1972), Cost benefit analysis: bastard science? and/or insidious poison in the body politick, Journal of Public Economics, 1, 2, 199-225.

A. Williams (1974), The cost benefit approach, British Medical Bulletin 30, 3, 252-6.

Seminar 7: The elderly

(a) What are the economic characteristics of the "crisis" arising from the "greying" of the U.K. population (i.e. more people surviving into old age)?

(b) What are the implications of this crisis for either income maintenance or health care policy?

R. Berthoud (ed.), Social policy: Aims and resources for the 1990s, Policy studies institute (especially the chapters by Walker, Kay and Atkinson).

V. Fuchs (1984), Though much is taken: reflections on ageing, health and medical care, Milbank Memorial Fund Quarterly, 62, 2, 143-66.

F. Paish and A.T. Peacock (1954), The economics of dependence, 1952-82, Economica, 279-299.

Seminar 8: Competition in health care markets

(a) Critically evaluate the "York school" of health economists.

(b) Would increased competition in the U.K. health care market induce greater efficiency in the health system advocated by the Yorkists?

References to Lecture 12.

A.J. Culyer (1986), Health Service Ills: the wrong economic medicine, Centre for health economics, University of York, Discussion paper 16.

M. Friedman (1962), Capitalism and freedom, Chicago University Press (chapter on licensure).

D. Green (1985), Which doctor?, Institute of economic affairs, London.

BRITISH COMMONWEALTH

C. Undergraduate level
one semester course for health professionals from developing countries
100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction
Microeconomics: Firms and households
Economic growth and development
Interactions between health and development
Social indicators
Supply, demand and price
National income and health expenditure
Life tables and cohort analysis
Epidemiological measures
Determinants of supply
Determinants of demand
Elasticity
Competitive equilibrium
Project appraisal case study
Medical markets: supply side
Treatment of time in project appraisal
Exercises on compounding and discounting
Types of appraisal: financial, economic and social
Income distribution in project appraisal
Hospital costing
Introduction to health service organisation
Management of construction programmes
Inflation
Market failure and government intervention in the health sector
Introduction to health service finance
Methods of remuneration and their effects
Budgets and financial information

BRITISH COMMONWEALTH

C. Undergraduate level
one semester course for health professionals from developing countries
100% health economics

2. REPRESENTATIVE SYLLABUS

HEALTH ECONOMICS AND PLANNING FOR DEVELOPING COUNTRIES

SESSION

1	Welcome and introductions
2	Course outline
3 & 4	Participants report agency policies and problems
1	Microeconomics: Firms and households
2	Why health economics?
3	Economic growth and development
4	Interactions between health and development
1	Social indicators
2	Country data - sources
3 & 4	ASSIGNMENT - Participants prepare own country situation reports
1	Vital statistics and census data
2	Supply, demand and price
3 & 4	Country situation report - Turkey
1	National income and health expenditure
2	The demographic transition
3	Life tables and cohort analysis
4	Exercise on life tables
1	Epidemiological measures
2	The epidemiological transition
3 & 4	Participants prepare country situation reports
1	Determinants of supply
2	Determinants of demand
3	Standardisation in epidemiology
4	Exercise on standardisation

1 & 2	Participants present country situation reports
3 & 4	DIRECTED READING - Microeconomics
1	Elasticity
2	Introduction to the national health service
3 & 4	VISIT - Monkgate H.C.
1	competitive equilibrium
2	Price determination: effects of taxes, subsidies and quotas
3	Imperfect competition and welfare
4	Externality and public goods
1	Medical markets: demand side
2	Need and the agency relationship
3	DIRECTED READING
4	Project appraisal case study
1	Accessibility and utilisation
2	Location, accessibility and costs
3	Correlation and cause in epidemiology
4	Examples and interpretation
1	Tests of project acceptability
2	Project appraisal case study
3	DIRECTED READING
4	Project appraisal
1	Medical markets: supply side
2	Cost effectiveness comparisons
3	Case study: Treatment of varicose veins
4	Measurement of health: the clinical iceberg
1	Treatment of time in project appraisal
2	Arithmetic of compounding and discounting
3	Cost effectiveness case study:
4	Malaria control in nepal
1	Exercises on compounding and discounting
2	Measures of project worth
3	ASSIGNMENT
4	Exercise on discounting techniques and measures of project worth
1	Review of exercise
2	Further discounting techniques
3	Cost comparisons
4	Exercise on cost comparisons and measures of project worth

1	Types of appraisal: financial, economic and social
2	Interdependent project appraisals
3	DIRECTED READING
4	Participants case studies
1 & 2	VISIT: York DGH
3	SIMULATION GAME
4	Immunisation
1	Human capital theory
2	Benefit valuation
3	Discounted earnings
4	Valuation of human life
1	Treatment of uncertainty in project appraisal
2	Sensitivity analysis
3	ASSIGNMENT
4	Exercise on sensitivity analysis
1	Health output measurement
2	Case study: Coronary artery disease
3	Shadow prices
4	Participants case studies: Preparation
1 & 2	Option appraisal (1)
3	DIRECTED READING
4	Shadow pricing
1 & 2	Option appraisal (2)
3 & 4	Option appraisal (3)
1	Choice of technology
2	Case study: Basic radiology equipment
3 & 4	PHC in urban areas
1	Participants case studies
2	Preparation
3	ASSIGNMENT
4	Participants' case study preparation
1	Income distribution in project appraisal
2	Case study: Domestic water supply
3	Economies of scale
4	Economies of scale in health service provision
1	Efficient use of hospitals
2	Hospital costing
3	Disease costing
4	Participants case studies: Presentation

1	Participants case studies
2	Presentations
3 & 4	MID COURSE BREAK
1	Introduction to health service organisation
2	PHC: origins of the Alma Ata declaration
3 & 4	PHC: comprehensive or selective interventions
1, 2, 3 & 4	TB in Garda
1	Construction costs
2	Management of construction programmes
3	ASSIGNMENT
4	Preparation of PHC case studies
1 & 2	VISIT
3 & 4	Nucleus development at Northallerton
1	The cost of drugs
2	Briefing for project work
3	Design of optimal water supply and
4	Sanitation services
1	PHC action plan in the Gambia
2	Review of PHC in the Gambia
3	ASSIGNMENT
4	Preparation of PHC case studies
1	The selection of essential drugs
2	Optimal procurement
3	Population projections
4	Exercise on population projections
1	Inflation
2	The treatment of inflation in project appraisal
3	ASSIGNMENT
4	Preparation of PHC case studies
1, 2, 3 & 4	Presentation of PHC case studies
1	Market failure and government intervention in the health sector
2	Introduction to health service finance
3	Surveys of health sector finance
4	Finance case study
1	User charges and exemptions
2	Voluntary health insurance
3	DIRECTED READING: Public sector
4	Services in Indonesia

1	State health insurance
2	HMOs in USA
3	Case study: Indonesia
4	Project work discussion
1	Methods of remuneration and their effects
2	Public and private medical practice
3 & 4	DIRECTED READING
1	European systems of health care
2	Financing and their consequences
3 & 4	Health insurance in selected LDCs
1	Budgets and financial information
2	Introduction to health manpower planning
3 & 4	Experience with clinical budgeting
1	Program budgeting
2	Demand projection: The professional needs approach
3	DIRECTED READING
4	Health manpower planning
1	Demand projection: Market demand
2	Taiwan case study
3	Programmed demand
4	Manpower supply projection
1	Foreign aid
2	Valuation of foreign aid
3	ASSIGNMENT
4	Evaluation of aid offers
1	Manpower deployment, incentives and career Structure
2	Productivity of health manpower
3	Optimising the manpower mix
4	Project work discussion
1	Lifestyle interventions
2	Introduction to sectoral planning
3	Health sector planning in Jamaica
4	Costing the plan
1	Empirical planning
2	Health planning in a command economy
3	DIRECTED READING
4	Case studies in sector plans
1 & 2	Case study: The Gambia health plan
3 & 4	Project work: Final consultations

1 & 2	WHO CHP and subsequent developments
3	ASSIGNMENT
4	Project work preparation
1 & 2	CHP in Bangladesh
3 & 4	Benefits of family planning
1 & 2	SIMULATION GAME
3 & 4	Garda district budget
1	The role of departmental planning units
2	Case studies: HPUs in selected countries
3	ASSIGNMENT
4	Project work preparation
1 & 2	Project work presentations
3	Mobil health services
4	in Botswana and India
1 & 2	Project work presentations
3	Course evaluation: syndicates
4	Syndicates report findings

BRITISH COMMONWEALTH

D. Graduate level
one semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction of role of economics in health care
- Economic concepts as applied to health economics
- Health and health care as economic goods
- Role and scope of economists

Financing of health service
- Income and expenditure aspects
- Problems of financing
- Methods of financing

Demand for health care services
- Cross - national differences
- Prices and changes

Manpower planning and labour economics

Health care resources and costs
- Economic perspective
- Hospital cost comparisons
- Primary health care

Efficiency and effectiveness in health care
- Techniques of economic evaluation
- Cost-effectiveness analysis
- Cost-benefit analysis
- Measurement of health status
- Valuation of life

Evaluation of health services developments
- Case studies

Most commonly used textbooks:

Abel-Smith, B., Value for money in health services, Heinemann Educational Books.

Cullis, J.G. and West, P.A., The economics of health, Martin Robertson 1979.

Drummond, M.F., Principles of economic appraisal in health care, Oxford University Press 1980.

Drummond, M.F. Stoddart, G.L. and Torrance G.W., Methods for economic appraisal in health care programmes, Oxford University Press, 1986.

Feldstein, P., Health care economics, John Wiley and Sons 1979.

Lee, K. (ed.), Economics and health planning, Croom Helm, London 1979.

Lee, K., and Mills, A., The Economics of health in developing countries, 1983.

Maxwell, R.J., Health and wealth, 1981.

Mooney, G. et al, Choices for health care, 1980.

Rapoport, J. et al, Understanding health economics, Aspen Publication 1982.

Rigden, M.S., Health service: finance and accounting, 1983.

W.H.O., Health economics, Public health paper no. 64, 1975.

W.H.O., Poverty, development, and health policy, Public health paper no. 69, 1978.

BRITISH COMMONWEALTH

D. Graduate level
one semester course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

COURSE MODULE: HEALTH ECONOMICS

A. Aims and objectives

1. To acquaint course members with the approaches and viewpoints that economists bring to the health field, and with the published literature of health economics.

2. To familiarise course members with some of the analytical methods and tools employed by economists in the health field.

3. To make course members aware of some of the most important economic issues and problems faced by the health care field, and of the extent to which economic analysis can assist in their solution.

4. To stimulate course members to examine critically the economics of the health care sector in which they might work, in order that they may apply economic concepts and techniques and/or receive work from others, appreciate its methodology and be in a position to interpret its results.

B. Syllabus

While the course entails a good number of economic aspects of health and health care, it would be misleading to consider that the overall coverage is total. A discussion of the boundaries of health economics will be the subject content of the first session, while the syllabus itself indicates more fully the scope and range of this branch of economics.

An overview of the scope of the medical sector of the economy: its objectives, structure, macro-behaviour and performance. Approaches to the definition and measurement of ill-health; implicit valuation of health. Uses of economic analysis: incentives and barriers to efficient behaviour.

Determinants of the demand for health care; referral networks, consumption patterns and utilisation rates. Supply factors, access and proximity, and their influence upon consumer demand. Economic concepts of want and demand in relation to the need for medical care.

The supply of medical care facilities. Market conditions: restrictions and distributional considerations. Estimating production functions and hospital cost curves. Production costs, economies of scale and scale optima, productivity measurement within health agencies. The markets for factors: economic models of the labour market in health. Manpower planning: health manpower distribution and notions of shortage/surplus. The health profession's educational sector: human capital considerations.

The role of the market and planning. Problems of the market mechanism, imperfections and external effects. Financing mechanisms and equity/efficiency considerations. Micro-economic methods for evaluating health service developments: cost-effective and cost-benefit analyses. Budgeting for planning; cost and quality controls. Economic models of health planning.

C. Timetable

The note that follows is of particular interest to those with no prior background in economics.

Any course in health economics - that is so designed to enable those with no prior economics background to study the sub-discipline - faces a horse and cart problem in that one cannot adequately discus problems and issues in health economics without some awareness of economic concepts and terminology; on the other hand, a basic course in economic theory would be of rather minimal interest to most and would take up a disproportionate amount of class time. The answer to this problem appears to be to

embody a course in health issues within a framework of economic theory, whereby health issues and economics are intermingled in a digestible fashion.

One final point: in line with the philosophy offered above, it will be necessary to build into the teaching programme a degree of flexibility (room for manoeuvre), such that the titles of the sessions below indicate a declaration of intent which will be followed - but not regardless of the cost (of participation). These then are the labels chosen for the course which extends over twenty weeks (of one-and-a-half hours per week):

Week	
I	The role of economists and economics in health care
II	Is health care different?
III) IV)	Financing of health services: Income and expenditure aspects
V) VI)	Financing of health services: A discussion on problems and methods
VII	Determinants of the demand for health and health services
VIII	Determinants of demand: a discussion on cross-national differences
IX	Prices and charges
X	Manpower planning and labour economics
XI	Resources and costs I: An economic perspective
XII	Resources and costs II: Hospital cost comparisons
XIII	Resources and costs III: Primary health care
XIV	Efficiency and effectiveness in health care I: Techniques of economic evaluation
XV	Efficiency and effectiveness in health care II: Measurement of health status
XVI	Efficiency and effectiveness in health care III: Valuation of life
XVII	Evaluation of health services developments: Briefing on case studies
XVIII) XIX)	Presentation of case studies
XX	Review of course

D. General texts

It is to be remembered that the economics of health and health care, as a subject in its own right, is a relatively new one, largely dating from the mid-sixties. In consequence, the list that follows both reflects this recent history and its present bias towards the concerns of developed countries. (Those texts marked by an asterisk (*) will be particularly relevant to the above programme structure.)

KLARMAN, H.	The economics of health, 1965.
PAULY, M.V.	Medical care at public expense, 1971.
HAUSER, M. (ed.)	The economics of medical care, 1972.
FUCHS, V.R. (ed.)	Essays in the economics of health and medical care, 1972.
PERLMAN, M. (ed.)	The economics of health and medical care, 1973.
CULYER, A.J., and COOPER, M.H.	Health economics, Penguin Education, 1973.
HARRIS, S.E.	The economics of health care, 1974.
MIGUE, J.L., and BELANGER, G.	The price of health, 1974.
FUCHS, V.R.	Who shall live? Health, economics and social choice, 1974.
WILLIAMS, A., and ANDERSON, R.	Efficiency in the social services, 1975.
COOPER, M.H .	Rationing health care, 1975.
MAYNARD, A.K.	Health care in the European Community, 1975.
KAITZ, E.M.	Economic aspects of health care, 1975.

*W.H.O.	Health economics, Public health paper no. 64, 1975.
ZUBKOFF, M., and DUNLOP, D.	The economics of health, 1976.
CULYER, A.J.	Need and the national health service: Economics and social choice, 1976.
*ABEL-SMITH, B.	Value for money in health services, Heinemann Educational Books, 1976.
SORKIN, A.	Health economics in developing countries, 1976.
CULYER, A.J., et al	An annotated bibliography of health economics, 1977.
CULYER, A.J., and WRIGHT, K.G. (eds.)	Economic aspects of health services, 1978.
*W.H.O.	Poverty, development, and health policy, Public health paper no. 69, 1978.
BERMAN, H., and WEEKS, L.E. (eds.)	Economics in health care, 1978.
NEWHOUSE, J.P.	The economics of medical care, 1978.
*CULLIS, J.G., and WEST, P.A.	The economics of health, Martin Robertson 1979.
*LEE, K. (ed.)	Economics and health planning, Croom Helm, London 1979.
*FELDSTEIN, P.	Health care economics, john Wiley and Sons 1979.
AUSTIN, C.J.	Information systems for hospital administration, 1979.
*MOONEY, G., et al	Choices for health care, 1980.
*DRUMMOND, M.F.	Principles of economic appraisal in health care, Oxford University Press, 1980.

GRIFFITHS, D.A.T., et al	An annotated bibliography of health economics: Western European Sources, 1980.
EASTAUGH, S.R.	Medical economics and health finance, 1981.
*MAXWELL, R.J.	Health and wealth, 1981.
FUCHS, V. (ed.)	Economic aspects of health, 1982.
*RAPOPORT, J., et al	Understanding health economics, Aspen Publications 1982.
*LEE, K., and MILLS, A. (eds.)	The economics of health in developing countries, 1983.
*RIGDEN, M.S.	Health service: Finance and accounting, 1983.
MACH, E.P., and ABEL-SMITH, B.	Planning the finances of the health sector, 1983.
SORKIN, A.	Health economics: an introduction, 1984 (2nd edition).
EVANS, R.G.	Strained mercy: The economics of Canadian health care, 1984.
MOONEY, G.H.	Economics, medicine and health care, 1985.
SORKIN, A.	Health care and the changing environment, 1986.
DRUMMOND, M.F. et al	Studies in economic appraisal in health care, vol. 2, 1986.

There are certain concepts and techniques which are basic to economics and thus tend to appear in any study which applies the discipline of economics to health and health care. It is to this basic set that the course will be directed. The assumption made is that students do not need a sophisticated understanding of economics but an awareness of the nature of economic thinking which will help them ask the right questions, take appropriate evidence into account in decision-making, and perceive the relevance (and the limits) of economic analyses in their work. To that end this course focuses on the opportunities, and the difficulties, of applying economic reasoning to issues in the health sector.

BRITISH COMMONWEALTH

E. Graduate level
one semester course
less than 80% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction
Concepts of need, supply and demand
Economic appraisal
Economic evaluation
Cost benefit analysis
Cost effectiveness analysis
Planning
Screening
Revenue allocation
Manpower planning
Financing health care
Policy analysis

Most Commonly used textbooks:

Bates, E. and Lapsley, H. (1985) "The health machine. The impact of medical technology" Penguin Books, Australia.

Cochrane, A.L. (1972). "Effectiveness and efficiency: Random reflections on health services". Nuffield Provincial Hospitals (362.1 COC)

BRITISH COMMONWEALTH

E. Graduate level
one semester course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

EVALUATION AND PLANNING IN HEALTH CARE

READING LIST

1. ESSENTIAL READING

(a) Cochrane, A.L. (1972). "Effectiveness and efficiency: Random reflections on health services". Nuffield Provincial Hospitals (362.1 OCO)

Despite its date, this is one of the most sane books written on this topic. Please try to read within the first 3-4 weeks - it's not too long!

(b) Bates, E. and Lapsley, H. (1985) "The health machine. The impact of medical technology". Penguin Books, Australia.

Considers effectiveness and efficiency in relation to advances in medical technology in fairly informal way. Also strong on ethical issues and "patient power/rights". Up-to-date contrast to Cochrane.

2. ECONOMIC APPRAISAL

(a) Drummond, M.F. (1980)." Principles of economic appraisal in health care". Oxford University Press. (362.1068 DRU)

(b) Drummond, M.F. (1981)" Studies in economic appraisal in health care". Oxford University Press.

(c) Mooney, G.H., Russell, E.M. and Weir, R.D. (1980) "Choices for health care". London, MacMillan (362.1068 MOD).

3. EVALUATION

(a) Shortell, S.M. and Richardson, W.C. (1978). " Health program evaluation". C.V. Mosby, St Louis.

(b) Schulberg, H.C. et al (1970). "Program evaluation in the health fields", Behavioural publications, New York.

(c) Nutt, P.C. (1982) "Evaluation concepts and methods" (Revised edition). S.P. medical and scientific books, New York.

(d) "Evaluation of health care", Oxford medical publications, OUP.

4. COST BENEFIT ANALYSIS

(a) Burchell, A. and Weeden, R. (1982) "Practical thoughts on cost-benefit analysis and health services". Health Trends, Vol. 14, pp. 56-60.

(b) Dunlop, D.W. (1975) "Benefit-cost analysis: A review of its applicablity in policy analysis for delivering health services". Social Science and Medicine, Vol. 9, pp. 133-139.

(c) Palmer, G. (1981) "The evaluation of health care technology: a cost-benefit approach". Community Health Studies, Vol. 5, No. 2.

(d) Hurst, J.W. (1984) "Measuring the benefits and costs of medical care: The contribution of health status measurement". Health Trends. Vol. 16.

(e) Levin, A.L. (1968) "Cost effectiveness in maternal and child health. Implications for program planning and evaluation". The New England Journal of Medicine, Vol. 279, No. 19.

5. PLANNING

Knox, E.G. (1979). " Epidemiology in health care planning", OUP, Oxford. (362.1068 EPI).

6. SCREENING

(a) Knox, E.G. (1973). "A simulation system for screening procedures", in, The future and present indicatives, G McLachlan (Ed). Nuffield Provincial Hospitals Trust.

(b) Griffiths, D.A.T. (1981) "Economic evaluation of health services: concepts and methodology applied to screening programmes" Rev. Epidem. et Sante Publ, pp. 85-101.

(c) Wilson, J.M.G. and Jungner, G. (1969). "Principles and practice of screening for disease", Public health papers (WHO) 34, Geneva.

(d) Cochrane, A.L. and Holland, W.W. (1971). "Validation of screening procedures". British Medical Bulletin, 27:3.

(e) Canadian task force on the periodic health examination - Report - Canadian Medical Association Journal.

7. BREAST CANCER

(a) Irwig L.M. (1974) "Breast cancer" The Lancet Nov. 30.

(b) Kelsey, J.L. (1979) "A review of the epidemiology of human breast cancer", Johns Hopkins University School of Hygiene and Public Health.

(c) Bedford, J. (1985) Breast cancer screening - bibliography.

(d) Holman, D. and Armstrong, B. (1982) Malignant neoplasm of breast.

(e) Bywaters, J.L. and Knox, E.G. (1976) "The organisation of breast cancer services" The Lancet, April 17.

(f) Shapiro, S. et al (1976) "Periodic breast cancer screening in reducing mortality from breast cancer" Journal of American Medical Association, March 15, Vol. 215, No. 11.

8. CLINICAL TRIALS

(a) Peto, R. et al (1976) "Design and analysis of Randomised clinical trials requiring prolonged observation of each patient" I INTRODUCTION AND DESIGN Br. J. Cancer 34, 585.

(b) Peto, R. et al (1976) "Design and analysis of randomised clinical trials requiring prolonged observation of each patient" II ANALYSIS AND EXAMPLES Br. J. Cancer 35, 1.

(c) Alman, J.E. (1980) "Statistical and ethical considerations in clinical trials" Community Dental Oral Epidemiol. 8:267-272.

(d) Rumde, L. (1983) "Critical reflections on clinical trials" Statistics in Medicine, Vol. 2, 175-181.

(e) Colton, T. (1974) "Clinical Trials" Chapter 10 of Statistics in Medicine Little, Brown and Co., Boston.

BRITISH COMMONWEALTH

F. Graduate level
two semester course
less than 80% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction to economics and social policy analysis
Economic appraisal and health policy in developing countries
Aging and health expenditure
Social polices
Externalities
Equity

Most commonly used textbooks:

None

BRITISH COMMONWEALTH

F. Graduate level
two semester course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

Economic and social policy analysis

Social policy analysis

Seminar programme

Autumn term

See programme for health economics.

Spring term

Week 0/1 Option appraisal exercise

Week 2 Economic appraisal and health policy in the developing countries

The following references all relate to one disease but offer a useful basis on which you can assess the quality of work to date, appraise the practical difficulties in doing studies of this sort, and suggest ways in which better studies may be done in the future.

Baldwin, R.E. and Weisbrod, B.A. (1974), Disease and labor productivity, Ec. Devt. and Cult. Change, 414-35.

Cohen, J.E. (1974), Potential economic benefits of eliminating mortality attributed to schistosomiasis in Zanzibar, Soc. Sci. Med., 383-98.

Prescott, N.M. (1980), On the benefits of tropical disease control. In C. Wood and Y. Rue (eds.), Health policies in developing countries, Academic press.

Weisbrod, B.A. and Helminiok, T.W. (1977), Parasitic diseases and agricultural labor productivity, EDCC, 505-22.

Consult also any other papers on this and other tropical diseases. (See International bibliography.)

Week 3 Aging and health expenditures

In what ways are population aging and medical expenditure related? Will population aging necessarily lead to a 'crisis' in health services?

J.A. Brody (1985), Prospects for an ageing population, Nature, 315, 463-66.

J.F. Fries and L.M. Crago (1981), Vitality and ageing: Implications of the rectangular curve, W.H. Freeman.

V.R. Fuchs (1984), Though much is taken: Reflections on ageing, health and medical care, Milbank Memorial Fund Quarterly, 62, 143-66.

E.M. Gruinberg (1977), The failures of success, Milbank Memorial Fund Quarterly, 55, 3-24.

L.B. Russell (1981), An ageing population and the use of medical care, Medical Care, 19, 633-4.

R.F.A. Shigog (ed.) (1981), The impending crisis of old age. A challenge to ingenuity, Nuffield Provincial Hospitals Trust.

Week 4 Social policy: the seamless robe

How interrelated are human "needs"? Does it matter? How interrelated should the meeting of these "needs" be? Discuss, making clear the meaning attached to "need" and giving full weight to both the demand and the supply side.

No special reading. As general background, R. Mishra, Society and social policy, 1981, may be helpful. But you must develop a distinctively economic perspective - or tease out the economic implications, or the implications for the practice of economics, ...

Week 5 Externalities and publicness

What implications do externalities (specify various types) and "publicness" have for the finance of social services? Spell out the analysis formally and use your imagination to identify as many implications as you can.

References include Culyer, PESP, and references therein, as well as others you find for yourselves.

Week 6 Output

Why is the conceptualisation and measurement of the output of social services important (compare with the usual economic treatment of private services)? How may output be measured? Does the method depend upon the purpose for which the measure is to be used? How are such outputs to be valued? (Are they not already highly value-laden?)

Reading: PESP and references therein. See the QALY literature.

Week 7 Poverty

Discuss the definitions, measurement, causes and consequences of poverty and assess their implications for policy designed to combat it.

Reading: PESP and related references.

Week 8 Justice and fairness

Review the various meanings that philosophers have attached to the notion of "justice". Is economic justice a distinct notion? When justice and efficiency are in conflict, how should that conflict be resolved?

Buchanan, J., What kind of redistribution do we want?, Economica, 35, 1968.

Rawls, J., A theory of justice, Clarendon, Oxford, 1972, pp. 3-22, 60-108, 136-142.

Tobin, J., On limiting the domain of inequality, J. Law. Econs., 13, 1970.

For other new views about social justice you should consult Nozick, R., Anarchy, state and utopia, Basil Blackwell, Oxford; and Walzer, M., Spheres of justice, Martin Robertson, Oxford. Also browse in the library.

Daniels, N. (ed.), Reading Rawls, Basil Blackwell, Oxford (scan for what strikes you as helpful).

Pettit, P., Judging justice: An introduction to contemporary political philosophy, London, Routledge, 1980.

Rawls, J., Justice as fairness. In Laslett, P. and Runciman, W. (eds.), Philosophy, politics and society, Basil Blackwell Oxford, 1972.

Week 9 Migration

What are the main costs and benefits of migration for the individuals and communities concerned? On economic grounds should governments be seeking to encourage or discourage migration?

J.A. Jackson (1986), Migration, Longmans.

M.M. Kritz et al. (1981), Global trends in migration: Theory and research on international population movements, Centre for migration studies.

W.H. McNeil and R.S. Adams (1978), Human migration: Patterns and policies, Indiana University Press.

K.G. Willis (1974), Problems in migration analysis, Saxon House.

BRITISH COMMONWEALTH

G. Graduate level
seminar for developing countries (three weeks)
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction
World situation
 Financing health for all
Contribution of health economics to health planning
Resource allocation
Economic development and health
 Health care delivery
  State vs. market
Demand, supply and the price system
Economic evaluation
 Health indicators
 Cost-effectiveness analysis
 Cost-benefit analysis
National economic data
 Household insurance and expenditure
 Health sector finance
  Income analysis
   Public and private
  Expenditure analysis
Health insurance
Financial planning
Programme budgeting
Financial master planning
Evaluation

Most commonly used textbooks:
 None

BRITISH COMMONWEALTH

G. Graduate level
seminar for developing countries (three weeks)
80-100% health economics

2. REPRESENTATIVE SYLLABUS

SEMINAR ON HEALTH ECONOMICS AND HEALTH FINANCING IN DEVELOPING COUNTRIES

SEMINAR PROGRAMME

1. SEMINAR AIMS & OBJECTIVES

1.1. Aims

1) To help participants understand and apply economic concepts and techniques that are of use in developing strategies for financing, planning and evaluating health services; and specifically those that are of assistance in developing strategies for achieving Health For All.

2) To provide practical experience in analysing health finance and expenditure and formulating a master plan of action, and to help participants develop the approaches and the techniques taught in the seminar for use in their own countries.

3) To encourage participants to disseminate the perspectives, skills and techniques acquired during the seminar in their own countries, and to help those participants who wish to develop similar courses in their own countries to learn from the experience of the seminar and adapt it for use in their own countries.

4) To provide participants with an international perspective on the financing of health systems and to facilitate the exchange of knowledge and opinions.

1.2. Objectives

1) To provide a working knowledge of macro-economic thinking, methods and sources of data relevant to the health sector.

2) To develop an awareness of techniques of economic evaluation and skills in cost analysis and reviewing economic evaluation studies.

3) To develop skills in investigating the sources of finance and expenditure of the health sector.

4) To evaluate different methods of financing and paying for health services and their effects.

5) To review the means of constructing a financial master plan for the health sector to meet national objectives.

1.3. Methods

1) Lectures

2) Seminars.

2. SEMINAR PROGRAMME BY SUBJECT AND SESSION

2.1. INTRODUCTORY SESSIONS.

2.1.1. WELCOME AND INTRODUCTION OF PARTICIPANTS.

Aims & Objectives:
To enable staff and participants to get to know each other.

Content:
Brief introduction of each participant, mentioning:
-background
-present job
-expectations of seminar.

2.1.2. SEMINAR OBJECTIVES AND METHODS.

Aims & objectives:
To inform participants of the activities of the next 3 weeks, and discuss course objectives and methods.

Content:
Seminar objectives
Seminar content and sequence of topics.
Seminar methods.
Activities expected of participants.

Handout:
Seminar programme.

2.1.3. THE GLOBAL RECESSION AND FINANCING HEALTH FOR ALL.

Aims & objectives:
To set the global context for the seminar and review present experience of financing health for all.

Content:
The world economic situation.
Progress in financing health for all.

2.1.4. SEMINAR: THE CONTRIBUTION OF HEALTH ECONOMICS TO HEALTH PLANNING.

Aims & objectives:
To familiarise participants with the concepts, principles and scope of health economics.
To demonstrate how economics fits in with planning.

Content:
Definition of health economics and main concerns and scope.
Major topics within health economics (especially efficiency and equity).
Relevance of health economics to planning.
Experience of participants.

Handouts:
Briefing note no. 1. The contribution of health economics to health planning.
Glossary.
Lee K, Mills A J. The economics of health in developing countries. Oxford University Press, 1983.

2.1.5. RESOURCE ALLOCATION EXERCISE.

Aims & objectives:
To demonstrate the principles and issues of resource allocation through the means of practical exercise.
To stimulate group work.

Content:
To demonstrate the principles and issues of resource allocation through the means of practical exercise.
To stimulate group work.

Content:
The resource allocation exercise.

2.1.6. INTRODUCTION TO MICRO-COMPUTERS.

Aims & objectives:
To provide a brief introduction to micro-computers and their uses so that interested participants can then teach themselves through hands-on experience and use of tutorial programmes.

Content:
Introduction to micro-computers.
Main types of programme available for micro-computers and their uses.

2.2 HEALTH AND THE ECONOMY

2.2.1. ECONOMIC DEVELOPMENT AND HEALTH (1).

Aims & objectives:
To demonstrate the interrelationships between health and the economy, and the economy and health.
To identify the qualitative and quantitative importance of the determinants of a country's health status and the influences on public and private health consumption.

Content:
The role of economic factors in determining levels of health (economic growth, unemployment, income levels etc.).
The role of health as an agent of economic and social development.

Handout:
Briefing note no. 2. Economic development and health.

2.2.2. ECONOMIC DEVELOPMENT AND HEALTH (2). CASE STUDY OF JAMAICA

Aims & objectives:
To illustrate the discussion of the relationship of economic development to health through the means of a country case-study.

Content:
Economic development and health in Jamaica in the twentieth century.

Handout:
Cumper, G.E. Jamaica: a case-study in health development. Soc. Sci. Med. 17 (24), 1983-1993, 1983.

2.3. THE MARKET FOR HEALTH CARE.

2.3.1. HEALTH CARE: THE STATE VERSUS THE MARKET.

Aims & objectives:
To consider the characteristics of health and health care which influence the behaviour of private markets for health care, and which affect government policy towards health.

Content:
The characteristics of health.
Advantages and disadvantages of a market system for health care.
The welfare state.

Handout:
Briefing note no. 3. Health care: the state versus the market.

2.3.2. DEMAND, SUPPLY AND THE PRICE SYSTEM.

Aims & objectives:
To introduce the concepts of demand, supply and the price system.
To demonstrate their relevance to health care.

Content:
Determinants of supply and demand.
The price mechanism.
Elasticity.
Short class exercises to demonstrate principles.

Handout:
Briefing note no. 4. The price system - health and health care.

2.4. ECONOMIC EVALUATION.

Aims & objectives:
To introduce the principles of economic evaluation and show how economic evaluation fits into the planning process.
To give an appreciation of the different techniques of economic evaluation and their value.
To introduce the main cost concepts and demonstrate how costs can be calculated.
To enable participants to practise cost analysis.
To present and discuss the various measures of health output that can be used in economic evaluation.

To introduce the concepts of health indicators and quality adjusted life-years.
To provide participants with practice in reviewing critically an economic evaluation study.

Handout:
Mills A J, Thomas M. The economic evaluation of health programmes in developing countries. EPC publication no. 3, LSHTM 1984.

2.4.1. INTRODUCTION TO ECONOMIC EVALUATION.

Content:
Concepts of efficiency.
Economic evaluation at various stages of the planning process.
Classification of different types of economic evaluation.

Handout:
Briefing note no. 5. Concepts of economic efficiency

2.4.2. THE USE OF OUTCOME MEASURES IN ECONOMIC EVALUATION.

Content:
Outcome Measures in economic evaluation
The use of the measure 'quality adjusted life-years'.

Handout:
Briefing note no. 8. Outputs, health and health indicators.
Williams A (1985). Economics of coronary artery bypass grafting. BMJ 3 August 1985; vol. 291; pp. 326-329.

2.4.3. COST ANALYSIS.

Content:
(1) Cost concepts (opportunity, total, average, marginal, fixed, variable costs; etc).
Methods of cost analysis.
Sources of data.
Analysis of joint costs.

(2) Exercise on costing immunization activities at a health centre and choosing between different immunization strategies.

Handout:
Briefing note no. 7. Inputs, resources and costs.
EPI costing manual.
Costing exercise.

2.4.4. TECHNIQUES OF ECONOMIC EVALUATION.

Content:
Techniques of cost-effectiveness analysis.
Techniques of cost-benefit analysis.
Discounting and shadow pricing.

Handout:
Briefing note no. 6. Techniques of economic evaluation

2.4.5. MEASURING HEALTH IMPACT.

Content:
Measures of health impact.
Techniques of measurement.
Illustration of health impact evaluation.

2.4.6. ECONOMIC EVALUATION EXERCISE.

Content:
(1) Group work, critically reviewing an economic evaluation study chosen by each group.

(2) Group reports on each study, followed by general discussion.

Handout:
Economic evaluation exercise.
Selected economic evaluation studies.

2.5. NATIONAL ECONOMIC DATA.

Aims & objectives:
To provide information on the data available in national accounts and international sources, and how it is of use to health planners.
To compile economic and social profiles of the countries represented at the seminar in order to compare the countries and demonstrate the use of internationally-available sources of data.
To review the uses of surveys on household income and expenditure.
To present concepts of income distribution and poverty.

2.5.1. NATIONAL ACCOUNTS AND NATIONAL ECONOMIC DATA.

Content:
Definition of concepts used in national accounts.
Measures of national income and their deficiencies as measures of welfare.
Sources of national economic and social data.

Handout:
Briefing note no. 9. Introduction to national accounts.

2.5.2. DEVELOPMENT OF COUNTRY PROFILES.

Content:
Completion by participants of an economic and social profile for each of the countries represented at the seminar, using the participant's own data and international sources.

Handout:
Country profile exercise.

2.5.4. SURVEYS OF HOUSEHOLD INCOME AND EXPENDITURE.

Content:
Information available in household surveys and its relevance to financing the health sector.
Measures of income distribution and poverty.

2.6. HEALTH SECTOR FINANCE AND EXPENDITURE ANALYSES.

Aims & objectives:
To consider the importance of reviewing health sector finance and expenditure patterns.
To discuss methods and sources of data.
To develop skills in finance and expenditure analysis.
To enable participants to consider how to undertake finance and expenditure analyses in their own countries.

Handout:
Briefing note no. 10 Health sector income and expenditure.
Mach E, Abel-Smith B. Planning the finances of the health sector. WHO 1983.

2.6.1. HEALTH SECTOR INCOME AND EXPENDITURE: AN OVERVIEW.

Content:
Definition of the income and expenditure of the health sector.
Sources of finance.
Patterns of expenditure.
Criteria for evaluating sources of finance and expenditure patterns.

2.6.2. SOURCES AND METHODS OF DATA COLLECTION OF HEALTH FINANCE AND EXPENDITURE.

Content:
Methods of data collection.
Information in MOH and other organisations' budgets.
Sources of information on the private sector and pharmaceuticals.
Types of analysis of collected data.

2.6.3. SURVEYS ON HEALTH FINANCE AND EXPENDITURE: EXERCISE.

Content:
Outline of a model of the health finance system in participants' countries.
Adaptation of expenditure matrices from Mach and Abel-Smith for participants' own countries.
Design of tables for presentation of results of an expenditure survey in participants' countries.
Consideration of how to calculate expenditure on primary health care.

Handout:
Surveys on health finance and expenditure: exercise.

2.6.4. HEALTH SURVEYS.

Content:
Methods of obtaining information on morbidity, utilization of health services and private expenditure on health.

Handout:
Ross D A, Vaughan J P. Health interview surveys in developing countries. EPC publication No. 4, 1984.

2.7. ADVANTAGES AND DISADVANTAGES OF VARIOUS FINANCING SOURCES.

Aims & objectives:
To review the various sources of finance for the health sector and their advantages and disadvantages.
To consider the sources in the light of their potential for raising additional finance for the health sector.

Handout:
Briefing note no. 11 Sources of finance for the health sector.

2.7.1. SOURCES OF HEALTH FINANCE: PUBLIC.

Content:
Public sources of finance; their advantages and disadvantages.
Charges for government health services.
External co-operation.

2.7.2. SOURCES OF HEALTH FINANCE: PUBLIC.

Content:
Private sources of finance; their advantages and disadvantages.
Employers' legal liability.
Non-government organisations.
Effect of the private sector on organised health services.

2.7.3. HEALTH INSURANCE.

Content:
Historical development of health insurance throughout the world.
Different types of scheme and their effects.
Methods of paying providers.
Experience of health insurance in developing countries.

2.7.4. FINANCING TASK.

Content:
Group review and discussion of four options for increasing finance for the health sector:

- Insurance
- Community finance
- User charges in government health services
- Private sector policies.

2.8. FINANCIAL PLANNING

Aims & objectives:
To observe the practices of financial planning in a British regional health authority.
To review the relevance of programme budgeting for developing countries; to discuss its use as a framework for planning and budgeting; to develop skills in analysing programme budget data.
To introduce participants to the idea of a financial master plan; to develop skills in costing the plan and projecting sources of finance.

2.8.1. VISIT TO OXFORD REGIONAL HEALTH AUTHORITY.

Content:
Presentation by Regional Officers on the planning procedures of the Region and the methods of financial planning and resource allocation.

Handout:
Kings Fund Centre. Notes on the national health service.
Rigden M S. Health service finance and accounting (excerpts).

2.8.2 PROGRAMME BUDGETING.

Content:
Definition of programme budgeting.
History of programme budgeting
Issues in programme budgeting methodology.
Relationship between programme budgeting and government accounting systems.
Uses of programme budgeting information.

Handout:
Briefing note no. 11 Programme budgeting
WHO, Programme budgeting as part of the managerial process for national health development. 1984.

2.8.3. GADA DISTRICT BUDGETING EXERCISE.

Content:
Resource allocation and budget exercise.

Handout:
Gada district budgeting exercise.

2.8.4. INTRODUCTION TO THE FINANCIAL MASTER PLAN.

Content:
Objectives of making a financial master plan.
Relationship of the financial master plan to the planning process.
Steps in making a financial master plan.

Handout:
Briefing note No. 12. Financial planning and the financial master plan.

2.8.5. FINANCIAL MASTER PLAN METHODS: EXAMPLE 1.

Content:
Methodology of a financial master plan.
Resource analysis, 1984-1995, Ministry of health, Malawi.

Handout:
Briefing note no 12. Annex 3.

2.8.6. FINANCIAL MASTER PLAN METHODS: EXAMPLE 2.

Content:
Projecting income and expenditure of the health sector in Jamaica.
Comparison of estimates with reality.

Handout:
Briefing note no 12. Annex 2.

2.8.7. DISCUSSIONS ON THE FINANCIAL MASTER PLAN.

Content:
Group and class discussions on approaches to and methods for a financial master plan in their own countries.

2.9. ISSUES IN INCREASING EFFICIENCY IN THE HEALTH SECTOR

Aims & objectives:
To consider ways of increasing efficiency in the health sector. In particular:

1) how to evaluate the desirability of new technology
2) how to plan an essential drugs programme

2.9.1. SEMINAR: EVALUATING NEW TECHNOLOGIES: THE ROLE OF THE CLINICIAN AND THE ECONOMIC ADVISER.

Content:
How to evaluate new technologies
How to decide whether or not to purchase new technologies.
The contrasting perspectives of the clinician and economist.

2.9.2. PLANNING AN ESSENTIAL DRUGS PROGRAMME.

Content:
How to develop an essential drugs policy.
Likely scope for increased efficiency.

Handout:
Lionel W. and Hersheimer A. Coherent policies on drugs. World Health Forum 3, 285-296, 1982.

BRITISH COMMONWEALTH

H. Postgraduate level
two semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Health as an economic good
1.) Economic concepts and techniques for efficiency in public sector.
2.) Implications of markets, voluntary agencies, and charities.
3.) Third world.

Resources allocation in health care
Evaluation of health and health care
Income distribution and equity
Health and the price mechanism
Demand function
Supply function
Elasticity concepts
Controls, subsidies and taxes
Social and private benefits and costs
Production problems
Production functions
Market studies
Private sector objectives and implications
Factor markets
Labour
Capital
Growth, recessions, famines, aid

Most commonly used textbooks:

Cullis, A.J. and West, P.A., Economics of health: an introduction, Martin Robertson, 1979.

Feldstein, P.J., Health care economics, Wiley, 1979.

General reading:

Jacobs,P., The economics of health and medical care, The University Park Press, 1980.

Lee, K. (ed), Economics and health planning, Croom Helm, 1979.

Lee, K. and Mills A., The economics of health in developing countries, Oxford University Press, 1983.

BRITISH COMMONWEALTH

H. Postgraduate level
two semester course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

HEALTH PLANNING AND FINANCING

WEEK

1 Introduction
Scope and development of subject. Health and health care from economics perspective - efficiency and equity.

2 Health as an economic good (I)
Characteristics. Basic welfare propositions, information, externalities, scale, altruism/gift.

3 Health as an economic good (II)
Economics of insurance principle: risk, incentives, moral hazard, free rider: public/private.

4 Resource allocation in health care
Economic concepts and techniques for determining the efficient use of resources in the public sector.

5 Evaluation of health and health care (I)
Introduction. Techniques. Cost-benefit analysis. Cost effectiveness.

6 Evaluation of health and health care (II)
Social cost estimation, costing procedures, problems and limitations, sensitivity analysis.

7 Evaluation of health and health care (III)
Social benefits: measurement instruments, health status indicators. Qalys.

8 Evaluation of health and health care (IV)
Value of life - subjectivity, implicit values, human capital, ethics.

9 Evaluation of health and health care (V)
Applications. Costs. Fertility control.

10 Health and health care: Poverty distribution and equity. Entitlement, poverty, distribution, inequality, access and use.

11 Health and the price mechanism (I)
Demand function - elasticity, agency. Estimation of demand functions.

12 Health and the price mechanism (II)
Supply function: elasticity. Equilibrium of supply/demand. Determination of price. Social and private benefits and costs.

13 Health and the price mechanism (III)
Policy instruments. Taxes, subsidies, controls, regulations, evidence.

14 The production process
Inputs, production functions, optimal mix. Cost and production functions.

15 Market studies
Firms and markets. Private sector objectives and implications for the provision of health care.

16 Resource allocation in health care
Implications of markets, voluntary agencies, charities and public sector.

17 The economics of caring
Women's role in reproduction and production, paid and unpaid aspects of health care.

18 Labour markets in health and health care
Payment structures, relativities, wastage turnover, staff mix, allocation.

19 Health and the economy/economy and health
Health expenditure/GNP. Case studies.

20 Health and the economy
Growth and development and aid. Capitalistic and socialistic health care.

21 Resource allocation and market studies in the Third World

22 Economic aspects of aid
Implications of allocation and distribution reduction associated with aid.

23 Health and the economy
Impact of the recession on health, north and south.

24 Forecasting famines
Economic indicators, micro and macro, and the development of famines.

General reading

The following references are relevant to the whole course.

Reference will be made throughout the course particularly to Cullis and West (1979), Lee and Mills (1983) and Culyer (1980).

Abel-Smith, B. 'Poverty, development and health policy', Public Health Paper, No. 69, WHO Geneva 1978.

Abel-Smith, B. Value for money in health services, Heineman, 1976.

Cooper, M.H.and Culyer, A.J. (eds) Health economics, Penguin, 1973.

Cullis, J.G. and West, P.A. The economics of health: an introduction, Martin Robertson, 1979.

Culyer, A.J. The political economy of social policy, Martin Robertson, 1980.

Culyer, A.J., Wiseman, J. and Walker, A. An annotated bibliography of health economics, Martin Robertson, 1977.

Feldstein, P.J. Health care economics, Wiley, 1979.

Jacobs, P. The economics of health and medical care, The University Park Press, 1980.

Lee, K. (ed) Economics and health planning, Croom Helm, 1979.

Lee, K. and Mills, A. The economics of health in developing countries, Oxford University Press, 1983.

Perlman, M. — The economics of health and medical care, Macmillan, 1974.

Wells, S. and Kless, W. — 'Health economics and development', Praeger Studies, 1980.

World Bank — Health sector policy paper, 1980.

Basic economics textbooks

Baumol, W.J. and Blinder, A.S. — Economics principles and policy, Third edition, 1985, Harcourt Brace Javonovich.

This is a policy-orientated economic textbook - rigorous but relevant. It is particularly strong on aspects of the strengths and weaknesses of the market system and the implications for policy. It also includes a very useful section discussing alternative economic systems and different economic perspectives.

Culyer, A.J. — Economics, Blackwell, 1985.

This basic economic textbook focuses on the uses of analysis in the understanding of social policy, history and politics and not just economic principles per se! It also includes a very extensive reference to empirical estimates obtained from econometric studies, many relate specifically to health care.

LeGrand, J. and Robinson, R. — The economics of social problems, Macmillan, Second edition, 1984.

This book is an introduction to some key economic concepts and methods of analysis applied to contemporary social problems. This textbook deals with the welfare economics aspects of the course.

Lipsey, R.G. — Introduction to positive economics,

This is an economics textbook rigorously exploring and developing basic economic concepts and models from a positive methodological standpoint. As such, it does not include a comprehensive account of welfare economics.

MSC HEALTH PLANNING AND FINANCING

HEALTH ECONOMICS LECTURES

LECTURE 1.

Introduction

Why health economics?
Scope and development of the subject area. Health and health care from the perspective of economics.

Reading:

*Cullis and West	Chapter 1
Lee, K.	'Health care in the developing world - the role of economists and economics' Soc. Sci. Med. 17 (24) pp. 2007-2015, 1983.
*Lee and Mills	Chapter 1 and 11
Williams, A.	'Health service planning' In studies in modern economic analysis (eds) Artis, MJ and Nobay, AR. Basil Blackwell, 1977.

LECTURE 2.

Health as an economic good

Health as consumption and investment. Notions of human capital. Determinants of health in developed and developing countries.

Reading:

Barlow, R.	'Health and economic development: a theoretical and empirical review', In Sirageldin I (ed), Research in human capital and development, vol. 1, JAI Press, 1979.
*Cochrane, A.L., Leger, A.S. and Moore, F.	'Health services input and mortality output in developed countries' Journal of Epidemiology and Community Health, 1978.

Conly, G.N.	'The impact of malaria on economic development' Scientific Publication, No. 297. PAHO Washington, 1975.
*Cullis and West	Chapter 2, pp. 24-33
Cumper, G.	Determinants of health levels in developing countries, Research studies press, Wiley, 1984.
Doyal, L.	The political economy of health, Pluto Press, 1974.
Fuchs, V.	'The contribution of health services to the American economy' MMFQ 44, pp. 65-101, 1966 (reprinted in Cooper and Culyer).
Grosse, R.N.	'The interrelationship between health and development: observations derived from field experiences' Soc. Sci. Med. 14C, pp. 99-120, 1980.
*Lee and Mills	Chapter 2
McKeown, T.	The role of medicine, Nuffield Provincial Hospitals Trust, 1976 (Second edition, Basil Blackwell).
*Mushkin, S.J.	'Health as an investment' Journal of Political Economy 70, 5 (2), pp. 129-57, 1962.
Paglin, M.	'Public health development: a new analytical framework' Economica pp. 432-441, 1974.

LECTURE 3.

Resource allocation in health care

Efficiency and equity in the health sector. Economic approaches to determining the most efficient use of resources in the public sector.

Reading:

Baumol and Blinder	Chapters 3 and 4

Bohm, P.	Social Efficiency : A concise introduction to welfare economics Macmillan. 1973.
Booth, T.A.	Planning for welfare Martin Robertson, 1979.
*Cochrane, A.L.	Effectiveness and efficiency: random reflections on health services Nuffield Provincial Hospitals Trust, 1972.
Culyer	1980 (chapter 8)
DHSS	Sharing resources for health in England, Resource allocation working party, DHSS, 1976.
*Le Grand J. and Robinson R.	The economics of social problems, Macmillan, 1976 (Chapters 1 and 2).

LECTURE 4.

The public/private debate

The chacteristics of health and health care.
The public/private debate. The role of insurance.

Reading:

Arrow, K.J.	'Uncertainty and the welfare economics of medical care' American Economic Review 53, pp. 941-973, December 1963 (reprinted in Cooper and Culyer).
*Cullis and West	pp. 33-49
Culyer, A.J.	'The nature of the commodity health care and its efficient allocation' Oxford Economic Papers 23, pp. 189-211, 1971 (reprinted in Cooper and Culyer).
Culyer, A.J.	Need and the NHS: Economics and social choice, 1976, chapter 7.
*Lees, D.	'Economics and non-economics of health services' Three Banks Review 110, pp. 3-20, 1976.
*Le Grand, J. and Robinson, R.	The economics of social problems, Macmillan, 1976 (chapter 2).

*McLachlan, G. and Maynard, A. — The public/private mix for health, Nuffield Provincial Hospitals Trust, 1982 (especially Culyer, A.J., 'The NHS and the market: images and realities' and Maynard, A., 'The regulation of public and private health care markets).

Roemer, M.I. — 'Market failure and health care policy', Journal of Public Health Policy, December, 1982.

Roemer, M.I. and Roemer, J.E. — 'The social consequences of free trade in health care: a public health response to orthodox economics' International Journal of Health Services 12 (1), 1982.

Titmuss, R.M. — 'Choice and the welfare state' in Commitment to welfare 1968 (chapter XII, pp. 138-51).

LECTURE 5.

Evaluation of health and health care (I)

Introduction to techniques of economic evaluation. Typology of methods. Cost-benefit and cost-effectiveness analysis.

Reading:

Carrin, G. — Economic evaluation of health care in developing countries Croom Helm, 1984.

*Drummond, M.F. — Principles of economic appraisal in health care Oxford University Press, 1980.

Drummond, M.F. — Studies in economic appraisal of health care Oxford University Press, 1981.

Gaspari, K.C. — 'The use and misuse of cost effectiveness analysis' Soc. Sci. Med. 17 (15) pp. 1043-1046, 1983.

Irvin, G. — Modern cost-benefit methods: an introduction to financial, economic and social appraisal of development projects, Macmillan Press, 1978.

Klarman, H.E.	'Application of cost-benefit analysis to health services and the special case of technological innovation' International Journal of Health Servicespp. 325-352, 1974.
Layard, R. (ed)	Cost-benefit analysis, Penguin Modern Economics Readings, 1972.
*Lee and Mills	Chapters 7, 8 and 9
*Mills A. and Thomas, M.	The economic evaluation of health programmes in developing countries, EPC publication No. 4, Winter 1984.
Ministry of Overseas Development	A guide to the economic appraisal of projects in developing countries, HMSO, 1977.
Mishan, E.J.	Cost-benefit analysis, George Allen and Unwin, 1983.
Sirageldin, I., Salkever, D. and Osborn, R.	Evaluating population programmes, Croom Helm, 1983.
Squire, L. and Van der Tak, H.G.	Economic analysis of projects, Johns Hopkins University Press, 1975.
Sugden, R. and Williams, A.	The principles of practical cost benefit analysis, Oxford University Press, 1978.
Van der Bossche, H.	'Economic aspects of parasitic diseases' Soc. Sci. Med., (special issue) 19 (10) 1984.
*World Health	'Economic evaluation of health programmes', WHSQ 38 Statistics Quarterly (4) 1985.

LECTURE 6.

Evaluation of health and health care (II)

Cost concepts, social cost estimation, costing procedures, shadow pricing, discounting.

Reading:

Cullis and West	Chapter 7

Expanded programme on immunisation	'An economic appraisal' Weekly Epidemiological Record 1980, 55, pp. 289-292 and 1981, 13 pp. 99-101.
*Expanded programme on immunisation	'Costing guidelines' EPI/GEN/79/5, WHO, 1979.
Heller, P.S.	Issues in the costing of public sector outputs. The public medical services of Malaysia, World Bank staff working paper no. 207, 1975.
*Jacobs	Chapter 6
King, M.	Medical care in developing countries, Oxford University Press, 1966 (chapter 12, 'The economy of a district hospital').
Lee, K.	'Resources and costs in PHC' in Lee, K. and Mills, A. (eds) The economics of health in developing countries, Oxford University Press, 1983.
*Levin, H.M.	Cost-effectiveness: A primer, Sage Publication, 1983.
Robertson, R.L. et al	'Service volume and other factors affecting the costs of immunisations in The Gambia' Bulletin WHO 62, pp. 729-736.

See also references for lecture five, especially Drummond (1980), Irvin, Ministry of overseas development, Squire and Van der Tak and WHSQ.

LECTURE 7

Evaluation of health and health care (III)

Measurement and valuation of effects and benefits. Health status indicators. Qaly's.

Reading:

Culyer, A.J., Lavers, R.J. and Williams, A.	'Social indicators: Health' Social Trends 1 (2) 1971.
Culyer A.J. and Wright, K.G.	Economic aspects of health services, Martin Robertson, 1978, chapter 2.

Dunlop, D.W. 'Theoretical and empirical issues in benefit identification, measurement and valuation related to parasitic disease control in poor countries' Soc. Sci. Med. 19 (10) pp. 1031-37, 1984.

*Ghana Health Assessment Project Team 'A quantitative method of assessing the health impact of different diseases in less developed countries', International Journal of Epidemiology, 10 (1), pp. 73-80.

Moser, C. 'Social indicators - systems, methods and problems', Review of Income and Wealth 19 (2), June 1973.

*Prescott N. 'Schistosomiasis and development',World Development, 7 (1), pp. 1-14, 1979.

Rosser, R.M. and Watts, V.C. 'The measurement of hospital output' International Journal of Epidemiology, 1 (4), 1972.

Weisbrod B.A. et al 'Disease and economic development: the impact of parasitic diseases in St Lucia", International Journal of Social Economics, 1(1), pp. 111-117, 1974.

Williams, A. 'Measuring the effectiveness of health care systems' British Journal of Preventive and Social Medicine, 28, 1974.

*Williams, A. 'Economics of coronary artery bypass grafting', BMJ 291, pp. 326-329, 3 August 1985.

See also references for lecture five, especially WHSQ.

LECTURE 8

Evaluation of health and health care (IV).

A discussion of different approaches to the valuation of life-subjective values, willingness to pay; implicit values: human capital approaches.

Reading:

Becker, G.S. — 'A theory of the allocation of time' in Economic Journal Vol. 75, No. 299, 1965, pp. 493-517.

Broome, J. — 'Trying to value a life', Journal of Public Economics, February 1978.

Broome, J. — 'Uncertainty and fairness', Economic Journal, Sept. 1984.

Culyer, A.J. — 'Medical care and the economics of giving' Economica 38 (151) pp. 295-303, February 1978.

*Culyer, A.J. — The political economy of social policy, Martin Robertson, Oxford, 1980.

Ghosh, D., Lees, D. and Seal, W. — 'Optimal motorway speed and some valuations of time and life' Manchester School 43 (2) pp. 131-143, June 1975.

*Hurst, J.W. and Mooney, G.H. — 'Implicit values in administrative decisions' in Health indicators, Culyer, A.J. (ed) Martin Robertson.

Jones-Lee, M.W. — 'Trying to value a life: Why Broome does not sweep clean', Journal of Public Economics, February 1978.

Jones-Lee (ed) — Value of life and safety, North Holland, 1982.

Jones-Lee, et al — 'The value of safety', Economic Journal, March 1985.

Jones-Lee, M.W. — The value of safety, Martin Robertson, 1976.

Klarman, H.E. — 'Syphilis control programmes' in Dorfman, R. (ed), Measuring benefits of government investments, Brookings Institute, 1965.

*Marin, A. — 'Your money or your life', Three Banks Review, June 1983.

Mooney, G. — The valuation of human life, Macmillan, 1977.

Needleman, L. — 'Valuing other people's lives' Manchester School pp. 309-342, December, 1976.

Torrance, G.W. and Zipursky, A. 'Cost effectiveness of antepartum prevention of Rh immunization Clinics in perinatology 11 (2) pp. 267-281. June 1984.

LECTURE 9

Cost benefit analysis of family planning

A critical review of the application of cost-benefit analysis techniques to investment in family planning. Divergence of social and private returns and the isolation paradox.

Reading:

Cassen, R. 'Population and development: a survey' World Development 4, pp. 785-830, 1976, Section 11.7** (this article has been reprinted in a volume published in 1981: Streeten, P. and Jolly, R. (eds) Recent issues in world development: A collection of survey articles, Pergamon Press, Oxford.

Cassen, R. India: Population, economy and society Macmillan, London, 1978 (pp. 63-76 on 'The economics of family formation').

Enke, S. 'The economic aspects of slowing population growth'Economic Journal, Vol. 76, No. 301, 1966.

Haverman, R.H. 'Benefit cost analysis of family planning programmes', Population and Development Review 2, 1, March, 1976, pp. 37-69.

IBRD 4. World development report 1984 - chapter

(The section of this report entitled 'Population change and development', chapters 4-9, were reprinted separately in 1985, published by OUP, New York.)

Leibenstein, H. 'Pitfalls in benefit-cost analysis of birth prevention' Population Studies, Vol. 2, 1969, pp. 161-170.

Nag, M. and Neeraj, K. 'Demographic transition in a Punjab village' Population and Development Review, Vol. 10, No. 4, 1984, pp. 661-678.

Robinson, W.C. and Horlacher, D.E. 'Population growth and economic welfare' Reports on population/family planning, 1971.

Sen, A.K. 'Isolation assurance and the social rate of discount' Quarterly Journal of Economics 81, 1967.

LECTURE 10

Health and health care: poverty, distribution, entitlement, inequality, access and use.

Reading:

Akin, J. 'Fees for health services and concern for equity for the poor' Technical note series 86-10, Population and nutrition department, World Bank, 1986.

Barnett, J.R. 'Equity, access and resource allocation: planning hospital services in New Zealand'. Social Services and Medicine, Vol. 18 No. 11, p. 981.

Broom, D.J. 'The social distribution of illness: is Australia more equal? Social Science and Medicine, Vol. 18 No. 11, 1984.

DHSS Inequalities in health report of a research working group, London 1980 OR

Harris, J. 'Why poor people remain poor in south India' in Social Scientist, No. 85, pp. 20-47.

HMSO Resources allocation working party: Sharing resources for health in England, 1976.

Le Grand, J. The strategy of equality, George Allen and Unwin, 1982.

Lipton, M. Poverty, undernutrition and hunger, World Bank working paper, 1983.

Ludbrook, A. and Maynard, A. — 'The regional allocation of health care resources in UK and France' in Policy and Administration, Vol. 17, No. 3, pp. 232-48.

Meerman, J. — Public expenditure in Malaysia, Published for the World Bank, OUP, 1979.

Selowsky, Marcelo — Who benefits from government expenditure, a case study of Colombia. World Bank, OUP, 1979.

Sen, A.K. — Poverty and famine: An essay in entitlement, Clarendon, 1981.

Sen, A.K. and Sengutpa — 'Malnutrition and sex bias' in Economic and Political Weekly, 18, 19-21, pp. 811-864.

Siamwalla, A. — 'Food insecurity in developing countries' in Food Policy, 5, 4 pp. 258-272.

Townsend, P. and Davidson, N. — Inequalities in health, Pelican, 1982.

Wilson, R. and White, E. — 'Changes in morbidity, disability and utilization differentials between poor and the non-poor', Medical Care, 15, 8 pp. 636-46.

MSC HEALTH PLANNING AND FINANCING

HEALTH ECONOMICS SEMINARS

Developed countries group

Seminar 1.

Introduction

Discussion of health economics, its scope, the sequence of the course and its inter relationship with the parts of the course. Allocation of seminar papers. Discussion of Health as an economic good and its relationship with the economy.

Reading:

As for lectures 1 and 2

Seminar 2.

Health and health care

What are the characteristics of health and health care? How does it differ from marketable goods? What are the implications of this for the provision of health care facilities?

Reading:

Arrow, K.J.	'Uncertainty and welfare economics of medical care.' American Economic Review, 53 941-973 Dec. 1963 - also reprinted in Cooper and Culyer Health economics.
Abel-Smith	Health in a cold climate, Lancet.
Cullis and West	The economics of health, pp. 33-49.
Culyer, A.J.	The political economy of health, 1980, 5 and 8.
LeGrand, J. and Robinson, R.	The economics of social problems, 1976, chapter 2.
McLachlin, G. and Maynard, A.	The public private mix for health, Nuffield 1980.

Seminar 3.

Economic evaluation of renal failure

Critical review and assessment of case studies.

In considering the economic aspects of these studies consider:

a) Whether cost-benefit or cost-effectiveness is appropriate
b) If the study is a cost-benefit study, how are benefits calculated?
c) In either type of study:

i) What are the opportunity costs?
ii) Is the interdependence between units taken into consideration?
iii) Is the size and scale of the unit relevant?
iv) Are the units being considered being run efficiently?
v) What is the time period appropriate for study?
vi) How should the relevant costs and benefits be discounted over time?

Reading:

See Lectures 4-5

Buxton, M.J. and West, R.R.	Cost-benefit analysis of long-term haemodialysis for chronic renal failure, BMJ, 17 May 1965.
Drummond	Economic evaluation, See Studies (1981) and Principles (1980).
Klarman, H.E., Francis, J. O'S Rosenthal, G.D.	Efficient treatment of patients with kidney failure, Culyer and Cooper, Health economics, Medical Care. Vol. 6, 1968.
Ludbrook, A.	'A Cost-effective analysis of the treatment of chronic renal failure', Applied Economics, September 1981.
Mancini, P.	'The economics of diabetic nephrology', Diabetic Nephrology, June 1983.

Seminar 4.

Health and the working environment

Discuss the economic aspects of measures to improve safety at work paying especial attention to information, regulation and enforcement and the implied value of life.

Reading: (As for Lecture 8)

Jones-Lee M.W., Hammerton M.W. and Philips, P.R. — 'The value of safety', The Economic Journal, March 1985.

Marin, A. — 'Your money or your life?', The Three Banks Review, June 1983.

Marin, A. — 'Commodity, the bias of the world', in Science of Total Environment. and Wealth No. 40, Columbia University Press, New York 1976.

Marin, A. — 'The reward for risk in the labour market', G. Psacharopolos in Journal of Political Economy August 1982.

Oi, W.Y. — 'On the economics of industrial safety', New and Contemporary Problems, 58, 1974, pp. 669-699.

Rea, S.A. — 'Workmen's compensation and occupational safety under imperfect information', American Economic Review, 71, 1981, pp. 80 and 93.

Thale, R. and Roran, S. — 'The value of saving a life: evidence from the labour market', in N. Terkickij (ed): Household production and consumption NBER, Structures in income

Seminar 5.

Equity an inequality in health

A discussion of equity of provision, access and use of services.

Reading:

DHSS — Inequalities of health, report of a research working group, DHSS, London, 1980.

LeGrand, J. — The strategies of equality - redistribution and the social services, 1982, chapters 2 and 3.

Ludbrook, A. and Maynard, A. — 'The regional allocation of health care resources in UK and France', Policy and Administration, Vol. 17, No. 3, 1983, pp. 232-248.

RAWP — Resources allocation working party, HMSO.

Townsend P. and Davidson, N. — Inequalities in health, Pelican 1982.

West, P.A. — Theoretical and practical equity in the national health service, Social Science and Medicine 15, 1981

Wilson, R. and White, E. — 'Changes in morbidity, disability and utilization? Differentials between poor and non-poor', in Medical Care, 15, 8 pp. 636-646.

UNITED STATES OF AMERICA

II. UNITED STATES OF AMERICA

A. Undergraduate level
one semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction of issues in health economics
  Economic concepts as applied to health economics
  Health and health care as economic goods
  Problems of measurement
Cost-benefit analysis
Medical decision making
Public policy: regulation vs. competition
Theory of demand for health
Theory of demand for health care services
Empirical studies of demand
Production and supply of health care services
  Physicians, dentists, nurses, hospitals, pharmacists
Hospital behavior
Health maintenance organizations (HMO's), PPO's and other capitation schemes
Costs of health care
Health care financing
  Government subsidies
  U.S. prospective payment systems (via DRG's)
  Health insurance and third party payers
  National health insurance
Economics of medical education and licensure
Economics of malpractice
International comparisons of health care delivery systems
Equity problems
Efficiency problems

Most commonly used textbooks:

Feldstein, Paul J., Health care economics, 2nd edition, New York: John Wiley and Sons, 1983.

Fuchs, Victor, Who shall live, New York: Basic Books, 1974.

Jacobs, Philip, The economics of health and medical care: an introduction, Baltimore: University Park Press, 1980.

Newhouse, Joseph, The economics of medical care: a policy perspective, Massachusetts: Addison-Wesley, 1978.

Sorkin, Alan L., Health economics, Lexington, Massachusetts: Lexington Books, 1984.

UNITED STATES OF AMERICA

A. Undergraduate level
one semester course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

I. BACKGROUND

Reinhardt, U.E. (1986), "Uncompensated hospital care," in F. Sloan, J. Blumstein, and J. Perrin, eds., Uncompensated hospital care: Rights and responsibilities, Baltimore: The Johns Hopkins University Press, pp. 1-5.

Thurow, L.C. (1984), "Learning to say 'No'," NEJM, December 13, pp. 1589-72, and Fuchs, V.R. "The 'rationing' of medical care," NEJM, December 13, pp. 1572-73.

Wennberg, J.E., K. McPherson, and P. Caper (1984), "Will payment based on diagnosis-related groups control hospital costs?," NEJM, August 2, pp. 295-300.

II. THE MARKET FOR HOSPITAL SERVICES

A. Economic behavior of hospitals

Becker, E.R., F.A. Sloan (1985), "Hospital ownership and performance,: EI. Vol. 23, No. 1, January, pp. 21-36.

Ermann, D., J. Gabel (1984), "Multihospital systems: issues and empirical findings," HA, Spring, pp. 50-64.

Friedman, B. and M.V. Pauly (1983), "A new approach to hospital cost functions and some issues in revenue regulation," HCFR, March, pp. 105-14.

Ginsburg, P.B., F.A. Sloan (1984), "Hospital cost-shifting," NEJM, April 5, pp. 893-8.

Harris, J.E. (1977), "The internal organization of hospitals: Some economic implications," BJE, Autumn, pp. 467-82.

Newhouse, J.P. (1970), "Toward a theory of nonprofit institutions: An economic model of a hospital," AER, March, pp. 64-74.

Pattison, R.V., H.M. Katz (1983), "Investor-owned and not-for-profit hospitals," NEJM, August 11, pp. 347-54, and "Editorial," NEJM, August 11, pp. 370-2.

Pauly, M., M. Redisch (1973), "The not-for-profit hospitals as a physicians' cooperative," AER, March, pp. 87-99.

Showstack, J.A., et al. (1985), "The role of changing clinical practices in the rising cost of hospital care," NEJM, November 7, pp.1201-7.

B. Demand for hospital services

Brook. R.M., et al. (1983), "Does free care improve adults' health? Results from a randomized controlled trial," NEJM, December 8, pp 146-53.

Feldstein, M.S. (1971), "Hospital cost inflation: a study of nonprofit price dynamics," AER, December, pp. 858-66.

Marquis, M.S., et al. (1985), Informing consumers about health care costs: a review and research agenda, Santa Monica, CA: Rand Corporation, R-3263-HCFA, pp. 6-22.

Newhouse, J.P. (1978), "The demand for medical care services and the demand for health insurance," EMC, pp. 4-24.

Newhouse, J.P., et al. (1983), Some interim results from a controlled trial of cost sharing in health insurance, Santa Monica, CA: Rand Corporation, R-2847-HHS.

C. Regulating the hospital

Dans, P.E., et al. (1985), "Peer review organizations: Promises and potential pitfalls," NEJM, October 31, pp. 1131-7.

Luft, H.S., et al. (1979), "Should operations be regionalized? The empirical relation between surgical operations and mortality," NEJM, December 30, pp. 1364-9, and "Comments," NEJM, December 30, pp. 1393-4, NEJM, May 1, 1980, p. 1035.

Morrisey, M.A., F.A. Sloan, and S.A. Mitchell (1983), "State rate setting: an analysis of some unresolved issues," HA, Summer, pp. 36-47.

Schwartz, W.B., P.L. Joskow (1980), "Duplicated hospital facilities: How much can we save by consolidating them?," NEJM, December 18, pp. 1449-57.

Sloan, F.A. (1983), "Rate regulation as a strategy for hospital cost control: evidence form the last decade," MMFQ, Vol. 61, No. 2, Spring, pp. 195-221.

Sloan, F.A., J. Perrin, and J. Valvona (1986), "In-hospital mortality of surgical patients: Is there a basis for standard-setting?" S (forthcoming).

III. THE PHYSICIANS' SERVICES MARKET

A. Overview of performance

Newhouse, J.P. (1978), "Physician supply," EMC, pp. 25-67.

Rossiter, L.F., G.R. Wilensky (1983), "The relative importance of physician-induced demand in the demand in medical care," MMFQ, Vol. 61, No. 2, Spring, pp. 252-77.

Sloan, F.A., W.B. Schwartz (1983), "More doctors: what will they cost?," JAMA, February 11, pp. 766-9.

B. Economic behavior of practicing physicians

Reinhardt, U.E. (1972), "A production function for physician services," RSTAT, February, pp. 55-66.

Sloan, F.A., B. Steinwald (1975), "The role of health insurance in the physicians' services market," I, December, pp. 275-99.

Sloan. F.A. (1982), "Effects of health insurance on physicians' fees," JHR, 17, pp. 533-57.

Sloan. F.A., J.H. Lorant (1977), "The role of waiting time: evidence from physicians' practices," JB, October, pp. 486-507.

C. Alternative organizational forms

Frech. H.E., III (1985), "Preferred provider organizations and health care competition," in H.E. Frech, III, ed., Private and public health insurance: research and policy, Santa Barbara, CA:

Kirkman-Liff, B.L., J.B. Christianson, and D.G. Hillman (1985), "An analysis of competitive bidding by providers for indigent medical care contracts," HSR, December, pp. 549-77.

Luft, H.S. (1978), "How do health maintenance organizations achieve their 'savings': rhetoric and evidence," NEJM, June 15, pp. 1336-43.

Manning, W.G., et al. (1984), "A controlled trial of the effect of a prepaid group practice," NEJM, June 7, pp. 1505-10.

Marquis, M.S., et al. (1985), Informing consumers about health care costs: a review and research agenda, Santa Monica, CA: Rand Corporation, R-3262-HCFA, pp. 26-45.

National chamber foundation (1978), How business can stimulate a competitive health care system, Washington, D.C., pp. 1-46.
Pacific institute for public policy research, pp. 1-24.
Palmer, A.R. (1985), Economics of participation in preferred provider organizations, Santa Monica, CA: Rand Corporation, R-3228-HHS.

D. Supply and income of doctors

Bazzoli, G.J. (1985), "Does educational indebtedness affect physician specialty choice?" JHE, vol. 1, March, pp. 1-19.
Burstein, P.L., J. Cromwell (1985), "Relative incomes and rates of return for U.S. physicians," JHE, Vol. 4, No. 1, March, pp. 63-78.
Newhouse, J.P., et al. (1982), "Where have all the doctors gone?," JAMA, May 7, pp. 2392-6.

IV. PRIVATE AND PUBLIC PROVISION OF HEALTH INSURANCE

A. Demand for private health insurance

Feldstein, M.S. (1973), "The welfare loss of excess health insurance," JPE, March-April, pp. 253-61. (only).

B. Welfare implications

Crew, M. (1969), "Coinsurance and the welfare economics of medical care," AER, December, pp. 906-8.

C. Medicare and medicaid

Sloan, F.A., et al. (1978), Private physicians and public programs, Lexington, MA: Lexington Books, pp. 85-135.

D. The market for private insurance

Arnould, R.J., L.M. DeBrock (1985), "The effect of provider control of blue shield plans on health care markets," EI, July, pp. 449-74.

Journal and book key

AER:	American Economic Review
BJE:	Bell Journal of Economics
EI:	Economic Inquiry
EMC:	The Economics of Medical Care. Reading, MA: Addison-Wesly Pub. Co.
HA:	Health Affairs
HCFR:	Health Care Financing Review
HSR:	Health Services Research
I:	Inquiry
ILLR:	Industrial and Labor Relations Review
JAMA:	Journal of the American Medical Association
JB:	Journal of Business
JHE:	Journal of Health Economics
JPE:	Journal of Political Economy
MC:	Medical Care
MMFQ:	Milbank Memorial Fund Quarterly
NEJM:	New England Journal of Medicine
RSTAT:	Review of Economics and Statistics
S:	Surgery

UNITED STATES OF AMERICA

B. Undergraduate level
one semester course
less than 80% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction
Health and health care as economic goods
Equity and efficiency of health care delivery systems
Cost-benefit analysis
Demand for health care service
Supply of health care services
Role of hospitals
Costs of different health care delivery systems

Most commonly used textbooks:

Feldstein, Paul J., Health care economics, 2nd edition. New York: John Wiley & Sons, 1983.

B. Undergraduate level
one semester course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

The purpose of this course is to provide an understanding of basic principles of economics as applied to issues of government intervention in the areas of promoting health, safety, and assisting the elderly.

We will look at how scarce resources 'are' allocated and how these resources 'should' be allocated.

Our inquiry will delve into: economic aspects underlying the behavior of key actors in the provision of services related to these areas, rationales why government intervention is necessary, and the question of when does the private sector do a better job than the public sector for providing essential services.

COURSE REQUIREMENTS

You will be held responsible for the following tasks:

1. Reading assignments. In addition to the texts a few articles will be assigned and either will be handed out or put on reserve.

2. Workbook assignments. These are to be done for each chapter assigned in the Leftwich and Sharp book. They will not generally be turned in, but it is expected that you can answer all questions in the assigned chapters.

3. Questions log. For all reading assignment chapters or articles, (except in the Leftwich and Sharp book) you are to write out three questions that either capture the most important issues raised in the reading or are aspects of that material that you did not fully understand.

   This log will be checked periodically and will be turned in the 14th week.

4. Homework assignment problems. These will be passed out occasionally. Sometimes they are to be turned in. Other times they will not be formally graded.

5. One short paper on current affairs. This paper, due in the 14th week, consists of your photocopying a short newspaper article of your choice and writing an economic analysis of it using tools, concepts, graphs, and theories that we covered in the course. This paper is to be no longer than two type written pages.

6. Second short paper. This is to consist of a report of an academic journal article, a book chapter, or an outside lecture or conference. You may be asked to give an oral presentation of this report sometime during the semester.

7. Midterm exam and a final exam. Material for the exams will come from reading assignments, problem-homework assignments, and lectures and discussions from class. Some material will be only covered in class meetings and can not be found in our text.

REQUIRED TEXTS:

(1) Economics of social issues, 6th edition by Leftwich and Sharp
(2) Workbook to accompany Economics of social issues
(3) Who shall live? by Fuchs

Supplemental readings:

It may at times be helpful to consult an introductory economics text to provide an additional treatment of some topic. The following introductory economics texts are particularly good:

(a) Economics by Samuelson
(b) Principles of political economy by Fusfeld
(c) Economics: Principles and policy by Baumol and Blinder

This course will be divided into two parts. The first deals with learning basic principles and tools of economic analysis. This will be taught in the areas of health and safety. This part of the course will use the Leftwich and Sharp book.

The second part of the course will explore in more depth the economics of medical care and cost-benefit analysis.

PART ONE

Assignments:

Week	Topic	Chapters in Leftwich and Sharp 6th edition and workbook
1	Introduction	1 (Make sure you do the appendix in the workbook.)
2	Population growth issues	1
3	Markets and price control	2
4	Markets and price control (continued)	2
5	Crime control	5
6	Illegal drug use	handout
7	Environmental	6
8	Health care	10

PART TWO

In this part of the course we will read the entire Fuchs book. The topics we will cover are: Supply of physicians and medical education, demand for physicians, effects of medical insurance, medicare and medicaid, hospital economics, cost containment, alternative facilities: nursing homes, hospices.

Further references on the economics of medical care

1. Ted J. Ackroyd, Health and medical economics: a guide to information sources, 1977.

2. Ronald Andersen, Joanna Lion, and Okin W. Anderson, Two decades of health services: Social survey trends in use and expenditure, 1976.

3. John G. Cullis and Peter a. West, The economics of Health: an introduction, 1979.

4. Anthony J. Culyer, Jack Wiseman, and Arthur Walker, An annotated bibliography of health economics, 1977.

5. Robert M. Gibson and Daniel R. Waldo, "National health expenditures, 1980," Health Care Financing Review, September 1981, pp.1-54.

6. David L. Goldfarb, ed., Profile of medical practice 1981, 1981.

7. Robert A. Musacchio and Douglas E. Hough, eds., Socio-economic issues of health 1981, 1981.

8. Jacqueline R. Leopold and Kathryn M. Langwell, "The demand for health care with special emphasis on cost containment: a review of the literature." In National commission on the cost of medical care: 1976-1977, Vol. 3, pp. 47-93.

9. Richard B. Singer and Louis Levinson, eds., Medical risks: patterns of mortality and survival, 1976.

10. Journal of Human Resources. various issues.

11. Journal of Economic Literature. (A quarterly index of economic books and articles. Category 913 is the economics of health.)

12. Index Medicus. (A monthly and annual index of practically all medical subjects.)

UNITED STATES OF AMERICA

C. Undergraduate level
one quarter course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Basic economic concepts
Health, economics, and medical care
Tools for economic evaluation of health care
  Cost-effectiveness analysis
  Cost-benefit analysis and the "value of life"
Market phenomena
  Supply and demand for health care services; including physicians, hospitals, insurance, ancillary health services, pharmaceuticals, etc.
Government regulation and health care
Externalities and human health
Hospital behavior
Alternative health plans (HMO's, PPO's, etc.)
Economics of licensure, malpractice and medical education
International comparisons of health care delivery systems

Most commonly used textbooks:

Aaron, Henry J. and Schwarz, William B., The painful prescription, Washington: Brookings Institution, 1984.

Feldstein, Paul J., Health care economics, 2nd edition, New York: John Wiley and Sons, 1983.

Jacobs, Philip, The economics of health and medical care: an introduction, Baltimore: University Park Press, 1980.

UNITED STATES OF AMERICA

C. Undergraduate level
one quarter course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

Economics of health care

Text: Paul J. Feldstein, Health care economics, John Wiley & Sons, New York, NY, 1983.

I. INTRODUCTION

Text: Chs. 1-4

II. Supply and demand for physician services

Text: Chs. 5, 7, 9, 13, 14, 15 & 16

*(i) Robert H. Brook, ET. AL., "Does free care improve adults' health? Results from a randomized clinical trial," New Eng. Journal of Medicine, Dec. 1983, pp. 1426-34.

III. Market for hospitals

(i) Text: Ch. 10

*(ii) R.K. Koshal, M. Koshal, K. Nandola & W.A. Rau, "Forecasting models for hospital emergency room visits," paper presented at the TIMS/ORSA annual meetings, Detroit, MI April 1981.

IV. Market competition in medical care and its consequences

Text: Ch. 12

V. Health insurance: private versus public

Text: Chs. 6, 8, 20

VI. Government regulation & health care

Text: Chs. 11, 18-19

*(i) Mark V. Pauly, "Taxation, health insurance, an market failure in the medical economy," Journal of Economic Literature, June, 1986, pp. 629-675.

*(ii) J.C. Goodman, The regulation of medical care: is the price too high? Cato Institute, San Francisco, CA 1980

VII. The pharmaceutical industry, Text: Ch. 17

VIII. Externalities and human health

*(i) R.K. Koshal & M. Koshal, "Environments and urban mortality an econometric approach," Environmental Pollution, Vol. 4, 1973.

*(ii) R.K. Koshal & M. Koshal, "Urban morbidity and air pollution in India: An econometric approach," Zeitschrift Fur Umweltpolitik - Journal of Environmental Policy 1984.

*(iii) R.K. Koshal "Water pollution and human health," Water, Air & Solid Pollution, Vol. 5, 1976.

*(iv) R.K. Koshal, M. Koshal, J. Bradfield," Fertility and air pollution: some empirical findings," Environmental International, Vol. 3, 1980.

*(v) R.K. Koshal & M. Koshal, "Rural water, air pollution and cancer mortality rates," Journal of Environmental Policy, 1985.

UNITED STATES OF AMERICA

D. Graduate level
one semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Relationship between health and health care
Empirical techniques and analyses
Demand for medical care
  Physicians, hospitals, pharmaceuticals, nurses, nursing homes, insurance
Supply of health care services
  Physicians, hospitals, nursing homes, nurses, pharmaceuticals, technology
Public policy issues
  Role of government
  Regulation vs. competition
  Nursing homes
  Hospitals
  Pharmaceuticals
  Ancillary health professions
  Cost-benefit analysis
  Health education
  National health insurance
Medical malpractice
Role of insurance
Health care advertising
Economics of prevention
Licensure of professionals
Equity problems
Efficiency problems
International comparisons of health care delivery systems
 Types of plans
 Government subsidies

Most commonly used textbooks:

Aaron, Henry J. and Schwartz, William B., The painful prescription, Washington, D.C.: Brookings Institution, 1984.

Fuchs, Victor, Who shall live, New York: Basic Books, 1974.

Jacobs, Philip, The economics of health and medical care: an introduction, Baltimore: University Park Press, 1980.

Newhouse, Joseph, The economics of medical care: a policy perspective, Massachusetts: Addison-Wesley, 1978.

Rapoport, J., Robertson, R.L., Stuart, B., Understanding health economics, Rockville, Maryland: Aspen Publications, 1982.

UNITED STATES OF AMERICA

D. Graduate level
one semester course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

Health economics

PURPOSE

The purpose of this course is to develop understanding and insight into health care issues through economic analysis. This understanding will aid in decision making at both the firm (hospital, etc.) and social policy level. Through readings, lectures and assignments, the goal is to enable the student to analyze new topics that will be encountered outside of the classroom. Economic analysis, independent thinking, and decision-making are all emphasized. Institutional factors are not the focus but rather the background from which to analyze.

METHODS

There are weekly readings from professional journals as well as from the assigned textbook (Feldstein, Health Care Economics, see below). Lectures will be devoted to formal class presentations by students (via role playing, eg. spokesperson for Blue Cross, A.H.A., Grey Panthers). The readings from professional journals are used both to learn about the issues as well as to learn research methods and critical analysis.

A previous course in economics, especially microeconomics is useful. Otherwise you may have to learn some background in economics.

READINGS

The primary textbook for the course is Paul Feldstein's Health care economics. Good books for background include Victor Fuchs', Who shall live? and an introductory economics textbook (ed. Paul Samuelson). For a more advanced microeconomic textbook, Jack Hirshleefer, Microeconomics.

The readings from professional journals are on reserve in the library, and are listed on the attached outline.

You are expected to be prepared for class discussion by reading the appropriate readings for each class. Follow the outline.

Class topics

Introduction and overview

Allocation of health care resources: Example - National institute of health

Cost benefit analysis: Example - FDA

Cost benefit analysis: Example - Value of life

Regulation: Theories: Example - Advertising

Hospitals

MID-TERM EXAM

For profit vs. non profit: Examples - Hospital and insurance

Physicians: Shortages - Too many: How to raise "wages"

Demand for medical care: Regressions, human capital, value of time

Insurance - Rand social science experiment - Elasticities

Cost-shift

Review/analysis of special topics

"Retreat" competition vs. regulation

FINAL EXAM

Reading list and outline

1 Introduction and overview

Feldstein, Chapters 1,3 and 4
Arrow, Kenneth J. "Uncertainty and the welfare economics of medical care," American Economic Review 53, No. 5 (December 1963): 941-973.
Fuchs, Victor, Who shall live? Basic Books.

2 Allocation of national resources - theory:
Example - National institutes of health: voting schemes, rationing?

Mushkin, Selma, Biomedical research: costs and benefits, 1979, Ballinger, pp. 191-204.
Schultze, Charles, The public use of private interest, Washington, D.C., The Brookings Institution, 1977.

3 Cost-benefit analysis: Theories, methods
Example - FDA, Value of life, (Feldstein, 4, 7, 8)

Mishan, E., "Evaluation of life and limb: a theoretical approach," JPE, Vol. 79 (1971): 687-705.
Peltzman, Sam, "An evaluation of consumer protection legislation: The 1962 Drug Amendment," JPE, 81, No. 5 (Sept./Oct. 1973): 1049-1091.
Prest, A.R. and Turvey, R., "Cost-benefit analysis: a survey," Surveys of Economics Theory, Vol. 3 prepared for the American Economic Association and the Royal Economic Society, New York, St. Martin's Press (1966): 155-207.

References:

Bunker, J., editor, Costs, risks and benefits of surgery
Layard, Richard, editor, Cost-benefit analysis, New York, Penguin Books, 1972.
Thompson, Mark S., Benefit-cost analysis for program evaluation, Beverly Hills, CA, Sage Publication, 1980.

4 Regulation: Theories (monopoly, public utilities, capture)
Examples - Advertising competition vs. regulation, DRGs, medical malpractice

Feldstein, Chapters 11, 12 18, 19
Benham, Lee, "Effects of advertising on the price of eyeglasses" Journal of Law and Economics, Vol 15, 1972, pp. 337-352.

Joskow, Paul, Controlling hospital costs, Cambridge, MA, M.I.T. Press, 1984.
Noel, Roger and Owen, Bruce, "What makes reform happen?, Regulations, March/April, 1983.
Stegler, George, "The theory of economic regulation", Bell Journal of Economics, Vol. 2, 1971, pp. 3-21.

5 Hospitals: Theories, economies of scale, labor and the bargaining unit

Feldstein, Chapter 10
Harris, Jeffrey, "The international organizations of hospitals: Some economic implications," Bell Journal of Economics, (Autumn, 1977): 467-482.
Pauly, Mark and Redisch, Michael, "The not-for-profit hospital as a physician's cooperative," AER, Vol. 63 (1973): 87-99.

6 For profit vs. non profit: theories
Example - Blood

Hansman, Henry, "The role of the nonprofit enterprise", 89, Yale Law Journal, 1980, pp. 835-901.
Kessel, Reuben, "Transfused blood, serum hepatitis and the coase theorem," Journal of Law and Economics, Vol. 17 (October 1, 1974).

7 Physicians and nurses: shortages, unions, how to raise wages

Feldstein, Chapters 7, 9, 13, 14, 15
Kessel, Reuben, "The A.M.A. and the supply of physicians", Law and Contemporary Problems, 1970, pp. 266-283.
Kessel, Reuben, "Price discrimination in medicine, "Journal of Law and Economics, Vol. 1 (Oct. 1, 1958).
Smith, Adam, Wealth of nations, Chapter 5.

8 Demand for medical care: regressions, human capital, value of time, the family and behavioral losses.

Feldstein, Chapter 5
Sindelar, Jody L., "Differential utilization of medical care by sex," Journal of Political Economy, (1982): 1003-1019.

9 Insurance: The Rand social science experiment, supply of insurance, taxes.

Feldstein, Chapter 6
Newhouse, Joseph P., et al., "Some interim results from a controlled trial of cost sharing in health insurance," New England Journal of Medicine, 305, No. 25 (Dec. 17, 1981): 1501-1507.
Sindelar, Jody,"Disincentive effects of taxation".

10 Cost-shift

Meyer, Jack, "Passing the health care buck: Who pays the hidden costs?" AEI, (1983): 1-50.
Sloan, Frank, and Becker, Edmund, "Cross-subsidies and payment for hospital care", Journal of Health Politics, Policy and Law, Vol. 8, No. 4, Winter, 1984, pp. 660-685.

II. UNITED STATES OF AMERICA

A. Undergraduate level
one semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction of issues in health economics
  Economic concepts as applied to health economics
  Health and health care as economic goods
  Problems of measurement
Cost-benefit analysis
Medical decision making
Public policy: regulation vs. competition
Theory of demand for health
Theory of demand for health care services
Empirical studies of demand
Production and supply of health care services
  Physicians, dentists, nurses, hospitals, pharmacists
Hospital behavior
Health maintenance organizations (HMO's), PPO's and other capitation schemes
Costs of health care
Health care financing
  Government subsidies
  U.S. prospective payment systems (via DRG's)
  Health insurance and third party payers
  National health insurance
Economics of medical education and licensure
Economics of malpractice
International comparisons of health care delivery systems
Equity problems
Efficiency problems

Most commonly used textbooks:

Feldstein, Paul J., Health care economics, 2nd edition, New York: John Wiley and Sons, 1983.

Fuchs, Victor, Who shall live, New York: Basic Books, 1974.

Jacobs, Philip, The economics of health and medical care: an introduction, Baltimore: University Park Press, 1980.

UNITED STATES OF AMERICA

E. Graduate level
one semester course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

BASIC OUTLINE AND READING LIST

Readings marked with an asterisk (*) are recommended, not required.

I. INVESTMENT IN HUMAN CAPITAL

Becker, Gary S. "Human capital and the personal distribution of income: an analytical approach." In Human capital, second edition. Also available as W. S. Woytinsky Lecture No. 1. Ann Arbor, Michigan: University of Michigan, 1967.

Becker, Gary S. Economic theory. New York: Alfred A. Knopf, 1971, chapter 9, lectures 35-36. (Hereafter cited as Economic theory.)

Becker, Gary S. Human capital. Second edition. New York: Columbia University Press for the National Bureau of Economic Research, 1975, especially part one.

Ben-Porath, Yoram. "The production of human capital and the life cycle of earnings." Journal of Political Economy, 75, No. 4 (August 1967).

Garen, John E. "The returns to schooling: a selectivity bias approach with a continuous choice variable." Econometrica, 52, No. 5 (September 1984).

Haley, William J. "Human capital: the choice between investment and income." American Economic Review, 63, No. 5 (December 1973).

Hirshleifer, Jack. "On the theory of optimal investment decision." Journal of Political Economy, 66, No. 4 (August 1958).

Mincer, Jocob. Schooling, experience, and earnings. New York: Columbia University Press for the NBER, 1974, chapters 1, 2, 5, 8.

Mincer, Jacob, and Polachek, Solomon. "Family investment in human capital: earnings of women." In Economics of the family: marriage, children, and human capital, edited by Theodore W. Schultz. New York: Columbia University Press for the National Bureau of Economic Research, 1975. (Hereafter cited as Schultz.)

*Rosen, Sherwin. "Learning and experience in the labor market." Journal of Human Resources, 7 (Summer 1972).

*Rosen, Sherwin. "Human capital: a survey of empirical research." In Research in labor economics, volume I, edited by Ronald Ehrenberg. Greenwich, Connecticut: JAI Press, 1977.

Sandmo, Agnar. "Investment and the rate of interest." Journal of Political Economy, 79, No. 6 (November/December 1971).

Willis, Robert J., and Rosen, Sherwin. "Education and self selection." Journal of Political Economy, 87, No. 5, part 2 (October 1979). (See the other papers in this issue of the JPE for examples of recent research in investment in human capital.)

II. PRODUCTION OF HEALTH, DEMAND FOR HEALTH, AND DERIVED DEMAND FOR MEDICAL CARE

*Auster, Richard D.; Leveson, Irving; and Sarachek, Deborah. "The production of health: an exploratory study." In Fuchs.

Cropper, M.L. "Health, investment in health, and occupational choice." Journal of Political Economy, 85, No. 6 (December 1977).

Feldstein, Paul J. Health care economics. Second edition. New York: John Wiley and Sons, 1983, Chapters 1-2. (Consult Feldstein for topics in health economics not covered in this course and references to those topics. Hereafter cited as Feldstein, Health care economics.)

*Fuchs, Victor R. "Some economic aspects of mortality in developed countries." In The economics of health and medical care, edited by Mark Perlman. London: Macmillan, 1974. (Hereafter cited as Perlman.)

Grossman, Michael. The demand for health: a theoretical and empirical investigation. New York: Columbia University Press for the National Bureau of Economic Research, 1972.

Grossman, Michael. "On the concept of health capital and the demand for health." Journal of Political Economy. 80, No. 2 (March/April 1972). (This paper is based on the first two chapters of an NBER monograph. It stresses the difference between health capital and other forms of human capital.)

*Ippolito, Pauline M. "Information and the life cycle consumption of hazardous goods." Economic Inquiry, 19, No. 4 (October 1981).

Muurinen, Jaana-Marja. "Demand for health: a generalized Grossman model." Journal of Health Economics, 1, No. 1 (May 1982).

*Silver, Morris. "An economic analysis of variations in medical expenses and work-loss rates." In Essays in the economics of health and medical care, edited by Victor R. Fuchs. New York: Columbia University Press for the National Bureau of Economic Research, 1972. (Hereafter cited as Fuchs.)

*Silver, Morris. "An econometric analysis of spatial variations in mortality by race and sex." in Fuchs.

Usher, Dan. "Comments on Michael Grossman's 'The correlation between health and schooling.'" in Household production and consumption, edited by Nestor E. Terleckyj. New York: Columbia University Press for the National Bureau of Economic Research, 1975.

Wolfe, John R. "A model of declining health and retirement." Journal of Political Economy, 93, No. 6 (December 1985).

*Wynand, P.M.M., and van der Gaag, Jaques. "Health as an unobservable: A MIMIC-model of demand for health care." Journal of Health Economics, 1, No. 2 (August 1982).

III. RESEARCH ON THE DEMAND FOR MEDICAL CARE

(Note: Research on the demand for children's care is discussed in Section IV.)

Acton, Jan P. "Demand for health care among the urban poor, with special emphasis on the role of time." in The role of health insurance in the health services sector, edited by Richard Rosett. New York: Neal Watson Publications for the National Bureau of Economic Research, 1976. (Hereafter cited as Rosett.)

Acton, Jan P. "Nonmonetary factors in the demand for medical care: some empirical evidence." Journal of Political Economy, 83 No. 3 (June 1975).

Coffey, Rosanna. "The effect of time price on the demand for medical care services." Journal of Human Resources, 18, No. 3 (Summer 1983).

Devany, Arthur S.; House, Donald R.; and Savings, Thomas R. "The role of patient time in the pricing of dental services: the fee-provider density relation explained." Southern Economic Journal, 49, No. 3 (January 1983).

Feldstein, Paul J. Health care economics, chapters 5, 6, and 9.

*Fuchs, Victor R., and Kramer, Marcia J. Determinants of expenditures for physicians' services in the United States, 1948-68. Washington and New York: National Center for Health Services Research and Development and National Bureau of Economic Research, 1972.

Fuchs, Victor R. "The supply of surgeons and the demand for operations." In The economics of physician and patient behavior, edited by Victor R. Fuchs and Joseph P. Newhouse. Journal of Human Resources, 13, Supplement (1978). (Hereafter cited as Fuchs and Newhouse.)

*Hay, Joel, and Leahy, Michael J. "Physician-induced demand: an empirical analysis of the consumer information gap." Journal of Health Economics, 1, No. 3 (December 1982).

Manning, Willard G., et al. "A two-part model of the demand for medical care: preliminary results from the health insurance study." In Contributions to economic analysis: health, economics, and health economics, edited by Jacques van der Gaag and Mark Perlman. Amsterdam: North-Holland Publishing Company, 1981. (Hereafter cited as van der Gaag and Perlman).

Newhouse, Joseph P., and Phelps, Charles E. "New estimates of price and income elasticities of medical care services." In Rosett.

Newhouse, Joseph P., and Phelps, Charles E. "Price and income elasticities for medical care services." In Perlman.

Newhouse, Joseph P., and Phelps, Charles E. "On having your cake and eating it too: econometric problems in estimating the demand for health services." Journal of Econometrics, 13 (August 1980).

*Pauly, Mark V. Doctors and their workshops. Chicago: University of Chicago Press, 1980.

Pauly, Mark V., and Satterthwaite, Mark A. "The pricing of primary care physicians' services: a test of the role of consumer information." Bell Journal of Economics, 12, No. 2 (Autumn 1981).

*Phelps, Charles E. "Effects of insurance on demand for medical care." In equity in health services, edited by Ronald Andersen, Joanna Kravits and Odin W. Andersen. Cambridge, Mass.: Ballinger Publishing Company, 1975.

*Phelps Charles E. "Illness prevention and medical insurance." In Fuchs and Newhouse.

*Sindelar, Jody L. "Differential use of medical care by sex." Journal of Political Economy, 90, No. 5 (October 1982).

IV. ECONOMIC MODELS OF THE FAMILY

A. Population theory

Becker, Economic theory, chapter 9, lecture 32.

Becker, Gary, S. "An economic analysis of fertility. In Demographic and economic change in developed countries. Universities-National Bureau Conference Series No. 11. Princeton, New Jersey: Princeton University Press for the NBER, 1960. (See also the comments in this volume by Duesenberry and Okun.)

Becker, Gary S., and Lewis, H. Gregg. "On the interaction between the quantity and quality of children." In Schultz.

Becker, Gary S., and Tomes, Nigel. "Child endowments and the quantity and quality of children." Journal of Political Economy, 84, no. 4, part II. (August 1976).

*Ben-Porath, Yoran, and Welch, Finis. "Do sex preferences really matter?" Quarterly Journal of Economics, 90, No. 2 (May 1976).

*Butz, William, and Ward, Michael. "The emergence of countercyclical U.S. fertility." American Economic Review, 69, No. 3 (June 1979).

Easterlin, Richard A., editor. Population and economic change in developing countries. Chicago: University of Chicago Press for the National Bureau of Economic Research, 1980. Read the papers by Easterlin, Pollak, and Wachter: Ben-Porath; and Schultz.

*Leibenstein, Harvey. "An interpretation of the economic theory of fertility." Journal of Economic Literature, 12, No. 2 (June, 1974),

Mincer, Jacob. "Market prices, opportunity costs, and income effects." In Measurement in economics: studies in mathematical economics and econometrics in memory of Yehuda Grunfeld. Stanford, California: Stanford University Press, 1963. (This important paper also discusses aspects of the supply of labor and search theory in labor markets.)

O'Hara, Donald J. "Microeconomic aspects of the demographic transition." Journal of Political Economy, 83, No. 6 (December 1975).

Robinson, Chris, and Tomes, Nigel. "Family labour supply and fertility: A two regime model." Canadian Journal of Economics, 15, No. 4 (November 1982).

Willis, Robert J. "A new approach to the economic theory of fertility behavior." In Schultz.

B. Interactions among family background, ability, health, schooling, and earnings

*Colle, Ann D., and Grossman, Michael." Determinants of pediatric care utilization." In Fuchs and Newhouse.

Edwards, Linda N., and Grossman, Michael. "An economic analysis of children's health and intellectual development." National Bureau of Economic Research working paper No. 180, May 1977.

Edwards, Linda N., and Grossman, Michael. "Adolescent health, family background, and preventive medical care." In Volume III of the Annual series of research in human capital and development, edited by Ismail Sirageldin and David Salkever. Greenwich, Connecticut: JAI Press, 1982.

*Fuchs, Victor R. "Time preference and health: an exploratory study." In Economic aspects of health, edited by Victor R. Fuchs. Chicago: University of Chicago Press, 1982. (Hereafter cited as Fuchs.)

Goldman, Fred, and Grossman, Michael. "Demand for pediatric care: an hedonic approach." Journal of Political Economy, 86, No. 2 (April 1978).

*Grossman, Michael. "The correlation between health and schooling." In Household production and consumption, edited by Nestor E.Terleckyj. New York: Columbia University Press for the National Bureau of Economic Research, 1975.

Inman, Robert F. "The family provision of children's health: an economic analysis." In Rosett.

Leibowitz, Arleen S., and Friedman, Bernard. "Family bequests and the derived demand for health inputs." Economic Inquiry, 17, No. 3 (July 1979).

Shakotko, Robert A.; Edwards, Linda N.; and Grossman, Michael. "An exploration of the dynamic relationship between health and cognitive development in adolescence." In van der Gaag and Perlman.

Tomes, Nigel. "A model of fertility and children's schooling." Economic Inquiry, 19 (April 1981).

V. INFANT MORTALITY IN THE U.S.

Corman, Hope, and Grossman, Michael. "Determinants of neonatal mortality rates in the U.S.: a reduced form model." Journal of Health Economics, 4, No. 3 (September 1985).

Corman, Hope; Joyce, Theodore J.; and Grossman, Michael. "Birth outcome production functions in the U.S." National Bureau of Economic Research working paper no. 1729, October 1985.

Grossman, Michael, and Jacobowitz, Steven. "Variations in infant mortality rates among counties of the United States: the roles of public policies and programs." Demography, 18, No. 4 (November 1981).

Harris, Jeffrey E. "Prenatal medical care and infant mortality." In Fuchs.

Rosenzweig, Mark R., and Schultz, T. Paul. "The behavior of mothers as inputs to child health: the determinants of birth weight, gestation, and rate of fetal growth." In Fuchs.

Rosenzweig, Mark R., and Schultz, T. Paul. "Consumer demand and household production: the relationship between fertility and child mortality." American Economic Review, 73, No. 2 (May 1983).

Rosenzweig, Mark R., and Schultz, T. Paul. "Estimating a household production function: heterogeneity, the demand for health inputs, and their effects on birth weight." Journal of Political Economy, 91 No. 5 (October 1983).

*VI. CURRENT HEALTH POLICY ISSUES

*Davis, Karen, and Schoen, Kathy. Health and the war on poverty. Washington, D.C.: The Brookings Institute, 1978.

*Grossman, Michael. "Government and health outcomes." American Economic Review, 72, No. 2 (May 1982).

*Grossman, Michael, Coate, Douglas; and Arluck, Gregory M. "Price sensitivity of alcohol beverages in the United States." In Control issues in alcohol abuse prevention: strategies for communities, edited by Harold Holder. Greenwich, Connecticut: JAI Press, Inc., 1986.

Brook, Robert, et al. "Does free care improve adults' health?" New England Journal of Medicine, 309 (December 1983).

Keeler, Emmett, and Rolph, John. "How cost sharing reduced medical spending of participants in the Health Insurance Experiment." Journal of the American Medical Association, 249 (1983).

*Lewit, Eugene M.; Coate, Douglas; and Grossman, Michael. "The effects of government regulation on teenage smoking." Journal of Law and Economics, 24, No. 3 (December 1981).

*Lewit, Eugene M., and Coate, Douglas. "The potential for using excise taxes to reduce smoking." Journal of Health Economics, 1, No. 2 (August 1982).

UNITED STATES OF AMERICA

F. Graduate level
one quarter course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Introduction and review of economic concepts
  Equity and efficiency problems
Demand for medical care
  Physicians, hospitals, nursing homes, nurses, insurance
Supply of health care services
  Physicians, dentists, hospitals, nursing homes, nurses, technology
Public policy issues
  Cost-benefit analysis
  Regulation vs. competition
  Role of government
  National health insurance
  Hospitals, nursing homes, etc.
Special issues-malpractice, licensure, advertising, prevention, and changing life styles
International comparisons of health care delivery systems

Most commonly used textbooks:

Feldstein, Paul J., Health care economics, 2nd edition, New York: John Wiley and Sons, 1983.

Newhouse, Joseph, The economics of medical care: a policy perspective, Massachusetts: Addison-Wesley, 1978.

Sorkin, Alan L., Health economics, Lexington, Massachusetts: Lexington Books, 1984.

UNITED STATES OF AMERICA

F. Graduate level
one quarter course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

ECONOMIC ANALYSIS OF HEALTH SERVICES

OBJECTIVES

This course is designed to accomplish two principal objectives: 1) to increase your familiarity with the applications of economic analysis to health services, and 2) through practice in performing such analyses, to develop your ability to apply economic reasoning correctly to health care problems and issues. These objectives are pursued within the general area of the managerial economics of health care. The second course in this sequence will concentrate on the application of economics to public policy in health care.

READING

There is one required textbook for this course:

S.C. Maurice and C.W. Smithson, Managerial economics, 2nd. ed. (Irwin 1985).

COURSE OUTLINE

All readings are available on closed reserve in the Health Sciences Library. Items marked with an asterisk are required of all students. Responsibility for other readings will be divided among the class.

1. Introduction to the economics of health and medical care

READING

*S.C. Maurice and C.W. Smithson, Managerial economics, 2nd. ed. (hereafter "Maurice and Smithson"), Ch. 3.

*D.S. Salkever and A.L. Sorkin, "Economics, health economics, and health administration," Journal of Health Administration Education 1 (Summer 1983), 225-263.

2. Simple analysis of a market economy

READING

*Maurice and Smithson, Ch. 2.

3. Special characteristics of the market for health services

READING

*M.V. Pauly, "Is Medical Care Different?" and B. Weisbrod, "Comment," in Competition in the health care sector: past, present and future. Greenberg. ed., pp. 19-55. Reprinted in Issues in health economics, Luke and Bauer, eds. (hereafter "Issues").

4. Theory of production

READING

*Maurice and Smithson, Ch. 5

5. Theory of cost

READING

*Maurice and Smithson, Ch. 7

6. Empirical studies of production and cost

READING

*Maurice and Smithson, pp. 116-126, Ch. 8 (read Ch. 4 for review or if not familiar with regression analysis).

D. Dranove, "An empirical study of a hospital-based home care program," Inquiry 22 (Spring 1985), 59-66.

J.W. Hay and G. Mandes, "Home health care cost function analysis," Health Care Financing Review 5 (Spring 1984), 111-116.

R.M. Scheffler, "The productivity of new health practitioners: Physician assistants and medex," in Research in health Economics, Scheffler, ed., vol. 1, 1979, 37-56.

7. Individual demand for health and health services

READING

*Maurice and Smithson, Ch. 9.

8. Market demand for health and health services

READING

*Maurice and Smithson, Ch. 10

*M.V. Pauly, "Economic aspects of consumer use," in Consumer incentives for health care, 1974. Reprinted in Issues, 113-139.

9. Risk and insurance

READING

*P.J. Feldstein, Health care economics, 2nd. ed., 1983 (hereafter "Feldstein"),110-142.

10. Empirical studies of demand

READING

*Maurice and Smithson, Ch. 11

R.M. Coffey, "The effect of time price on the demand for medical-care services," Journal of Human Resources 18 (Summer 1983), 407-424.

J.P. Newhouse, "The demand for medical care services: a retrospect and prospect," in Health, economics, and health economics, J. van der Gaag and M. Perlman. eds., 1981, 85-102.

C.E. Reeder and A.A. Nelson, "The differential impact of copayment on drug use in a medicaid population," Inquiry 22 (Winter 1985), 396-403.

11. Elementary demand forecasting

READING

*Maurice and Smithson, Ch. 12 (skim only).

*R.J. Caswell, "Forecasting Methods," in Handbook of health care accounting and finance, W.O. Cleverley, ed., 1982, 933-959.

12. Pricing and output decisions: perfect competition

READING

*Maurice and Smithson, Ch. 13.

13. Pricing and output decisions: firms with market power

READING

*Maurice and Smithson, Ch. 15.

14. Representative markets: long term care and registered nurse services

READING

L.A. Booton and J.I. Lane, "Hospital market structure and the return to nursing education," Journal of Human Resources 20 (Spring 1985), 184-196.

Feldstein, 417-443.

S.T. Mennemeyer and G. Gaumer, "Nursing wages and the value of educational credentials," Journal of Human Resources 18 (Winter 1983), 32-48.

*W.J. Scanlon, "A theory of the nursing home market," Inquiry 17 (Spring 1980), 25-41.

15. Pricing and output decisions: Multiple markets and products

READING

*Maurice and Smithson, Ch. 17.

16. Representative markets: physician services

READING

S.E. Margolis, "The pricing of physicians' services," Journal of Human Resources 18 (Fall 1983), 592-611.

M. Stano, "An analysis of the evidence on competition in the physician services markets," Journal of Health Economics 4 (September 1985), 197-211.

G.R. Wilensky and L.F. Rossiter, "The relative importance of physician-induced demand in the demand for medical care," Milbank Memorial Fund Quarterly/ Health and Society 61 (2:1983), 252-277.

17. Representative markets: hospital services

READING

E.R. Becker and F.A. Sloan, "Hospital ownership and performance," Economic Inquiry 23 (January 1985), 21-36.

J.E. Harris, "The internal organization of hospitals: some economic implications," Bell Journal of Economics 8 (Autumn 1977), 467-482. Reprinted in Issues, 183-197.

M.V. Pauly and M. Redisch, "The not-for-profit hospital as a physicians' cooperative," American Economic Review 63 (March 1973), 87-99. Reprinted in Issues, 211-223.

UNITED STATES OF AMERICA

G. Graduate level
one quarter course
less than 80% health economics

1. OUTLINE OF POSSIBLE TOPICS

Demand concepts
Health care financing
Health insurance industry
Special topics of:
Financing and regulation
Health planning and policy for developing countries
Environmental health policy analysis
Injury control

Most commonly used textbooks:

None: Readings assigned

UNITED STATES OF AMERICA

G. Graduate level
one quarter course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

WORKSHOP ON HEALTH CARE FINANCING

This workshop focuses on issues in the financing of medical care. It tries to consider both historical context of the policy problems and the current methodological and substantive issues. It consists of three distinct modules:

* The demand for medical care services as a function of health insurance and the demand for health insurance. The past decade has seen a considerable advance in understanding the relationship between health insurance and demand for medical services. The demand for health insurance is less well understood, but equally important. This component will briefly touch on the historical context of the debate over health insurance and will then focus on the work of the past decade.

* Competition and HMOs. This component will consider the competitiveness of the medical care marketplace; it will emphasize how the market for physician services conforms to and departs from the economist's ideal of a competitive market, and it will also consider the literature on health maintenance organizations.

* The Medicare program and global budgeting. The Medicare program is the largest single insurance program in the country. It currently is undergoing great changes. This component will consider those changes and future options for Medicare. It will emphasize recent analytical work and will conclude with a session on global budgeting that will take up what can be learned from the United Kingdom and Canada.

Workshop structure and organization

The workshop will meet twice a week. The grade will be based on module exercises and class participation.

The three modules will end with a class exercise at which students will present mock testimony to a legislative committee or a briefing on a piece of research. The other students in the workshop will act as the committee or the audience; the faculty person will chair the "hearing."

INSURANCE AND THE DEMAND FOR MEDICAL CARE

THE POLICY CONTEXT

Kennedy, In critical condition, chs. 1, 8.
Schwartz, The case for american medicine, pp. 114-125.
Handout.

THEORY - Session 1

Arrow, "Uncertainty and the welfare economics of medical care," AER 12/63.

Feldstein, "The welfare loss of excess health insurance," JPE 3/73.

Newhouse, The economics of medical care, ch. 2.

Pauly, Arrow, "The economics of moral hazard: Comment," AER 6/68.

Optional:

Fuchs, "From Bismarck to Woodcock: the irrational pursuit of insurance," JLE 1976.

Grossman, The demand for health, or JPE article 3/72 pp. 223-348.

Keeler, Newhouse and Phelps, R-1514, "Deductibles and the demand for medical services," (also Econometrica, 4/77).

Pauly, "Taxation, health insurance and market failure in medical care," mimeo.

Phelps and Newhouse, R-964-1, "Coinsurance, the price of time and the demand for medical services," appendix only.

Zeckhauser, "Medical insurance: a case study of the tradeoff between risk spreading and appropriate incentives,"JET 3/70.

NON-EXPERIMENTAL STUDIES - Session 1 and 2

Beck, "The effects of co-payment on the poor," JHR Winter 1974, pp. 129-142.

Barer, Evans and Stoddart, Controlling health care costs by direct charges to patients: snare or delusion?, Ontario Economic Council, 1979.

Newhouse, "The demand for medical care - retrospect and prospect," R-2191.

Scitovsky & McCall, "Coinsurance and the demand for physician services: four years later," SSB, 5/77.

Skim one of the next three papers:

Davis-Russell, REStat 5/72.

Feldstein, "Quality change and the demand for hospital care," Economitrica, or "Hospital cost inflation: a study of nonprofit price dynamics," AER 12/71.

Hsiao and Kelly, "Medicare benefits: a reassessment,": health and society: Milbank Memorial Fund Quarterly, 1984, pp. 207-229.

Marquis, "The costs, financing, and distributional effects of a catastrophic supplement to medicare, R-2431, (skim).

Rosett-Huang, "The effect of health insurance on the demand for medical care," JPE 3/73.

Optional:

Newhouse, P-6134 "Insurance benefits, out-of pocket payments, and the demand for medical care: a review of the literature,"

Newhouse, Phelps, Marquis, R-1149/1, "On having your cake and eating it too..."

Newhouse, Phelps, and Schwartz, "Policy options..." R-1528.

EXPERIMENTAL STUDIES AND THEIR IMPLICATIONS - Session 2

Congressional Budget Office, "Changing the structure of medicare benefits - issues and options," 1983, pp. 35-39.

Congressional Budget Office, "Containing medical care costs through market forces," pp. 11-16.

Duan et al., "A comparison of alternative models for the demand for medical care," R-2754 or JBES 4/83.

Hester-Leveson, "The health insurance study: a critical appraisal," Inquiry, 3/74, and Response by Newhouse 9/74.

Keeler and Rolph, "The demand for episodes of medical services: interim results from the health insurance experiment," R-2829 (skim).

Manning et al., "Health insurance and the demand for medical care: evidence from a randomized experiment," WD-2922.

Newhouse, "A design for a health insurance experiment," Inquiry 3/74.

Newhouse et al., "Some interim results from a controlled trial of cost sharing in health insurance," R-2847 or NEJM, Dec. 17,1981.

Newhouse, testimony before House Subcommittee on Science and Technology, September 1985, P-7141.

Optional:

Manning et al., "The demand for dental care," JADA, June 1985.

O'Grady et al., "The impact of cost sharing on emergency department use," N-2376 or NEJM, August 22, 1985.

Wells, Manning, et al., "Cost sharing and the demand for ambulatory mental health services," R-2960.

DEMAND FOR INSURANCE AND INSURANCE MARKETS - Session 3

Akerlof, "The market for lemons," QJE, August 1970.

Buchanan and Cretin, "Risk selection of families electing HMO membership, Medical Care, Vol. 24:39-51, Jan. 19, 1986.

Congressional Budget Office, "Containing medical care costs," pp. 21-46; appendix.

Eggers, "Risk differential..." HCFA Review, Winter 1980.

Eggers and Prihoda, "Pre-enrollment reimbursement patterns...," HCFA Review, Sept. 1982.

Enthoven, "Consumer choice health plan," NEJM March 23, 1978 and March 30, 1978.

Phelps, "Demand for health insurance - a theoretical and empirical investigation," R-1054. A shorter version is available as "Demand for reimbursement insurance," in R.N. Rosett, ed. The role of health insurance in the health services sector, 1976.

Rothschild-Stiglitz, "Equilibrium in competitive insurance markets: an essay on the economics of imperfect information," QJE, Nov. 1976.

Optional:

Cave, "Equilibrium in insurance markets with asymmetric information and adverse selection," R-3015.

Marquis and Phelps, "Demand for supplementary health insurance," R-3285.

Price, Mays, and Trapnell, "Stability in the federal employees health benefits program," JHE, Dec. 1983.

Session 4: Class exercise - TESTIMONY ON COST SHARING OR SCOPE OF SERVICES, EITHER IN MEDICARE OR MEDICAID OR MANDATES FOR PRIVATE INSURANCE - Other topics at approval of instructor.

COMPETITION AND HMO SEGMENTS

I. How competitive are the providers of medical care?

Benham, Lee. "The effects of advertising on the price of eyeglasses," J. of Law and Economics, Vol. 15, 1975.

Feldman, R. and J. Begun. "The effects of advertising - lessons from optometry", in J. Human Resources, XIII, supp,. 1978.

Friedman, Milton. Capitalism and freedom, pp. 137-160, (optional).

Leland, H.E., "Quacks, lemons, and licensing: a theory of minimum quality standards," J. Polit. Econ, 87, No. 6 (Dec. 1979).

Newhouse, J. The economics of medical care, pp. 49-73.

Rottenberg, S., "Economics of occupational licensing," Aspects of labor economics, NBER, 1962.

II. What is the evidence for providers' market power?

Evans, R. "Supplier-induced demand: some empirical evidence and implications." In The economics of health and medical care, ed. Mark Perlman. London: Macmillan, 1974, pp. 162-73.

Fuchs, V. and M. Kramer. Determinants of expenditures for physicians' services in the U.S., 1948-1968. N.Y., NBER, 1973, (optional).

Fuchs. V. "The supply of surgeons and the demand for operations", in J. Human Resources, XIII,

McCarthy, Thomas. "The competitive nature of the primary care physician services market", JHE. 1985, (optional).

Reinhardt, U., Comment on "Competition among physicians" in Competition in the health care sector, W. Greenberg ed., Aspen, Germantown, Maryland, 1978, pp. 121-148, (optional).

Sloan, F.A., and R. Feldman, "Competition among physicians," in COMPETITION in the health care sector, W. Greenberg ed., Aspen, Germantown, Maryland, 1978, pp. 45-102, (optional).

Sloan, Frank and W.B. Schwartz, "More doctors: what will they cost?" JAMA, Vol. 249, No. 6, Feb. 11, 1983, pp. 766-769.

Stano, Miron. "An analysis of the evidence on competition in the physician services markets", JHE 1985, (optional).
Supplement (1978).

Wilensky, G.R. and L.E. Rossiter, "The relative importance of physician induced demand in the demand for medical care," Milbank Memorial Fund Quarterly, Health and Society 61(2), 1983, pp. 252-277.

Woodward, R. and F. Warren-Boulton, "Considering the effects of financial incentives and professional ethics on "appropriate" medical care", JHE, vol. 3, No. 3 (Dec. 1984), pp. 223-238.

III. Variations in utilization across areas

Chassin and Brook, "Variables in the case of medical and surgical services by the medicare population", NEJM, Vol. 314, (Jan. 30, 1986), pp. 285-290.

Pauly, Mark V. "What is unnecessary surgery" in Milbank Memorial Fund Quarterly/ Health and Society, vol. 57, no. 57, No. 1, Winter 1979, pp. 95-117, (optional).

Wennberg, J. and A. Gittleson, "Variations in medical care among small areas," Scientific American, Vol. 246, 1982, pp. 120-ff.

IV. What are hospital incentives?

Ermann, D. and J. Gabel, "Multihospital systems: issues and empirical findings", Health Affairs, Spring 1984, pp. 50-64.

Harris, J.E., "The internal organization of hospitals: some economic implications," The Bell J. of Economics, Vol. 8, No. 2, (Autumn 1977), (optional).

Newhouse, J. Appendix to Chapter 4: How do hospitals make choices? The economics of medical care, pp. 68-73.

Pauly, M. and Redisch, M., "The not-for-profit hospital as a physicians' cooperative," AER, vol. 63., March 1973, pp. 87-99

Robinson, James and Harold Luft, "The impact of hospital market structure on patient volume, average length of stay and the cost of care", JHE, vol. 4, (Dec. 1985), pp. 333-356.

V. HMO types and incentives

Auger, R. and V. Goldberg, "Prepaid health plans and moral hazard," Public Policy, 22, 1974, pp. 253-393.

Bisabacm E.M., "Applying HMO utilization control techniques to PPO's" in The New healthcare market, Peter Boland, Ed., pp. 694-717.

Gabel, J. and D. Ermann, "Preferred provider organizations: performance, problems and promise", Health Affairs, (Spring, 1985), pp. 24-40.

Meier, G.B. and J. Tillotson, "Physician reimbursement and hospital use in HMO's," InterStudy, Excelsior, Minnesota.

Wolinsky, F.D. and B.A. Corry, "Organizational structure and medical practice in HMO's" Profile of medical practice, 1981, pp. 67-82.

VI. HMO Patient selection

Buchanan and Cretin, "Risk selection of families electing HMO membership", Medical Care, Vol. 24: 39-51, January, 1986.

Eggers and Prihoda, "Pre-enrollment reimbursement patterns...", HCFA Review, Sept. 1982.

Luft, H, "The self selection issue" in Health maintenance organizations: dimensions of performance, N.Y., Wiley, 1981, pp. 40-57.

VII. Use of HMO services

LoGerfo, "Rates of surgical care in PPG and independent settings," Medical Care. 17, 1979, pp. 1-10.

Luft, H.S. "How do HMOs achieve their 'savings'?" NEJM, 298, pp. 1336-1343.

Luft, H.S., "Why do HMOs seem to provide more health maintenance services?" Milbank Memorial Fund Quarterly, Sprint 1978, pp. 140-168.

Manning, W., A. Leibowitz, G. Goldberg, W. Rogers, and J. Newhouse, "A controlled trial of the effect of a prepaid group practice on the use of services", NEJM, 310 (June 7, 1984), pp. 1505-1510.

REGULATION AND PROSPECTIVE PAYMENT

THE MEDICARE PROSPECTIVE PAYMENT SYSTEM: DESCRIPTION AND INITIAL IMPACT

Historical background:

Richard Harris, A sacred trust

Theodore Marmor, The politics of medicare; Chicago: Aldine

Required:

Grace Carter and Paul Ginsburg, "The medicare case mix index increase," R-3292 (forthcoming HCFA Review).

Shan Cretin, Joseph P. Newhouse, Joan Buchanan, and Christina Witsberger, "Accounting profits by diagnosis related group and by hospital type under alternative prospective payment methods," WD-2940-1-HCFA.

DHHS, Report of Congress: "Hospital prospective payment for medicare," December 1982 (GPO Publ. No. 1983-381-858:170).

Stuart Guterman and Allen Dobson, "The impact of the medicare prospective payment system for hospitals," (forthcoming HCFA Review).

Julian Pettengill and James Vertress, "Reliability and validity in hospital case-mix measurement," HCFA Review, December 1982, pp. 101-128.

Optional:

DHHS, Report to Congress: "The impact of the medical hospital prospective payment system," 1984 Annual Report.

Victor Fuchs, "Though much is taken - reflections on aging, health and medical care," Health and Society: Milbank Memorial Fund Quarterly, Spring 1984, pp. 143-166.

Susan Hosek, Robert Kane, Maureen Carney, et al., "Prospective payment for rehabilitative care: interim results," WD-2779-2.

Judith Lave, "Hospital reimbursement under medicare," Milbank Memorial Fund Quarterly: Health and Society, Spring 1984, pp. 251-268, also comment by Bruce Vladeck in the same issue, pp. 269-278.

Judith Lave and Stephin Sheingold, "Analysis of the implication of the medicare projective (sic) payment system and option for change," draft, March 1986.

C. Richard Neu et al., "Extending the medicare prospective payment system to posthospital care: planning a demonstration," WD-2666-1.

Donald W. Simborg, "DRG Creep: A new hospital acquired disease," NEJM. June 25. 1981.

THE PROSPECTIVE PAYMENT SYSTEM: SEVERITY, COMPRESSION, VOLUME ADJUSTMENT, TECHNOLOGICAL CHANGE, AND MANAGING AN ADMINISTERED PRICE SYSTEM

Shan Cretin and Linda Worthman, "Alternative systems for case mix classification," WD-2927-1.

Alain Enthoven and Roger Noll, "Prospective payment: will it solve medicare's financial problem," Issues in Science and Technology, Fall 1984, pp. 101-116.

Paul Ginsburg, Marilyn Cvitanic, and Anne Johansen, "Controlling the volume of medicare hospital admissions under PPS: volume adjusters and preadmission review," WD-2767-1.

Philip Held and Mark Pauly, "Competition and efficiency in the end stage renal disease program, JHE, August 1983, pp. 95-118.

Judith R. Lave, "Is compression occurring in DRG prices?" Inquiry, Summer 1985.

Joseph P. Newhouse, "Two prospective problems with prospective payment of hospitals," JHE, 12/83.

Linda Worthman and Shan Cretin, "Review of literature on diagnosis related groups," WD-2816-1-HCFA.

Optional:

Bernard Friedman and Mark Pauly, "A new approach to hospital cost functions and some issues in revenue regulation." HCFA Review, March 1983, pp. 105-114.

Susan Horn, "Severity of illness within DRGs: impact on prospective payment," AJPH, vol. 75, 1985, pp. 1195-1199.

ICF Incorporated, "Simulation of the continuation of current medicare payment policy," mimeo.

Stephen Jencks, Allen Dobson, Patricia Willis, Patrick Feinstein "Evaluating and improving the measurement of hospital case mix," HCFA Review, annual supplement, 1984, pp. 1-12.

Helen Smith, Robert Fetter, and L.F. McMahon, "Variation in resource use within diagnosis related groups, Health Care Financing Review, 1984 supplement.

Anthony Romeo, Judith Wagner and Robert H. Lee, "Prospective payment and the diffusion of new technologies in hospitals," JHE, April 1984.

Kenneth Thorpe, Shan Cretin, and Emmett B. Keeler, "Are the DRG case weights compressed?" WD-2606-1, pp. 1-6.

THE PROSPECTIVE PAYMENT SYSTEM: THE TREATMENT OF TEACHING HOSPITALS

James M. Cameron, "The indirect costs of graduate medical education," NEJM May 9, 1985, pp. 1233-1238.

Roger Feldman and Sunny Yoder, "A theoretical analysis of GME financing," in Jack Hadley, ed., Medical education financing, Prodist, 1980.

Alan Garber, Victor R. Fuchs, and J.F. Silverman, "Case mix, costs and outcomes: differences between faculty and community services in a university hospital," NEJM vol. 310, 1984, pp. 1231-1237.

Judith Lave, "The medicare adjustment for the indirect costs of medicare education," Washington, D.C., AAMC, 1985.

Steven Sheingold, "The indirect teaching adjustment for medicare's prospective payment system," mimeo.

Frank Sloan, Roger Feldman, and Bruce Steinwald, "The effects of teaching on hospital costs," JHE 3/83.

PHYSICIAN REIMBURSEMENT IN THE MEDICARE PROGRAM

Ira Burney, P. Hickman, J. Paradise, and George Schieber, "Medicare physician payment, participation, and reform," Health Affairs, Winter 1984, pp. 5-24.

Jon Gabel and Thomas Rice, "Reducing public expenditures for physician services: the price of paying less," Journal of Health Politics, Policy and Law, Winter 1985, pp. 595-609.

Paul Ginsburg, Joseph P. Newhouse Janet B. Mitchell, et al., "Planning a demonstration of per-case reimbursement for inpatient physician services under medicare," WD-2613-2.

Jack Hadley, "How should medicare pay physicians?" Milbank Memorial Fund Quarterly: Health and society, Spring 1984.

William C. Hsiao and William B. Stason, "Toward developing a relative value scale for medical and surgical services," HCFA Review, Fall 1979, pp. 23-38.

Stephen Jencks and Allen Dobson, "Strategies for reforming medicare's physician payments: diagnosis related groups and other approaches," NEJM Vol. 312 (June 6, 1985), pp. 1492-1499.

Janet Mitchell, "Physician DRGs," NEJM September 1985.

Benson Roe, "The UCR Boondoggle: death knoll for private practice," NEJM 1981, vol. 305, pp. 41-45.

Optional:

American Society of Internal Medicine, Reimbursement for physicians' cognitive and procedural services: a white paper, and Cognitive services revisited, both published by the society in 1981 and 1986 respectively.

G.T. Hammons, Robert H. Brook, and Joseph P. Newhouse, "Evaluation of effects on the quality of care of selected alternatives for paying physicians under the medicare program," WD-2687-3.

OTA, Payment for physician services, 1986, at least ch. 1

Mark Pauly, Doctors and their workshops, University of Chicago Press, 1980

Uwe Reinhardt, Testimony in 1984 (mimeo)

GLOBAL REGULATION OF HOSPITAL BUDGETS AND ITS EFFECTS

Henry Aaron and William B. Schwartz, The Painful prescription, Brookings, chs. 1, 2, 7, & 8.

Brian Biles, Carl Schramm, and Graham Atkinson, "Hospital cost inflation under state rate setting programs," NEJM vol. 303, Sept. 18, 1980.

Craig Coelen and Daniel Sullivan, "An analysis of the effects of prospective reimbursement programs, on hospital expenditures," HCFA Review, Winter 1981, pp. 1-40.

Allan S. Detsky, Sidney Stacey, and Claire Bombardier, "The effectiveness of a regulatory strategy in containing hospital costs - The Ontario experience, 1967-1981," NEJM, July 21, 1983, pp. 151-8.

David Dranove and Kenneth Cone, "Do state rate setting regulations really lower hospital expenses," JHE, June 1985, pp. 159-165.

Julian LeGrand, "The distribution of public expenditure: the case of health care," Economica, May 1978, pp. 125-142.

Theodore Marmor, "Can the U.S. learn from Canada?" in Ed. Spyros Andreapoulos, What can we learn from Canada? Wiley, 1975.

Joseph Newhouse, "Medical care expenditure: a cross national survey," Journal of Human Resources, Winter 1977, pp. 115-125 (also P-5608-1).

Frank Sloan, "Rate regulation as a strategy for hospital cost control: evidence from the last decade," Health and society: Milbank Memorial Fund Quarterly, Vol. 61, 1983, pp. 195-221.

Optional: Michael Morrisey et al., "Hospital rate review: a theory and an empirical review," JHE, April 1984, pp. 25-47.

UNITED STATES OF AMERICA

H. Postgraduate level
two semester course
80-100% health economics

1. OUTLINE OF POSSIBLE TOPICS

Background and economic concepts
Market mechanism
Economics of the firm
Health services industry
- Economics of medical care
- Production of health
- Medical care sector
- Measuring changes in the price of medical care

Demand for medical care
Demand for health insurance
Market for health insurance
Supply of medical care
- Hospitals
- Physicians
- Competition vs. regulation

Empirical analyses, methods and results
Cost-benefit analysis in health care
Cost-effectiveness analysis in health care
Discounting and decision criteria

Most commonly used textbooks:

Feldstein, Paul J., Health care economics, 2nd edition, New York: John Wiley and Sons, 1983.

Heilbroner, Robert L. and Thurow, Lester C., Understanding microeconomics, Englewood Cliffs, N.J.: Prentice Hall, 1981.

UNITED STATES OF AMERICA

H. Postgraduate level
two semester course
80-100% health economics

2. REPRESENTATIVE SYLLABUS

INTRODUCTION TO HEALTH ECONOMICS

OBJECTIVE: The objective of this course is to introduce the student to the literature and analysis in health economics. The course includes both the theory of microeconomic analysis and some of its empirical applications in the health services area, including an introduction to analyses of the demand for and supply of health services.

TEXTBOOKS: Feldstein, Paul J., Health care economics, second edition (John Wiley & Sons, N.Y. '83).
Heilbroner, Robert L. and Thurow, Lester C., Understanding microeconomics (Prentice Hall Inc., Englewood Cliffs, New Jersey, 1981).

TOPICS AND READING ASSIGNMENTS

I. INTRODUCTION

A. Overview of the course

B. Introduction to microeconomics - definition, basic assumptions, purpose, scope, and brief history.

Heilbroner and Thurow (Chapters 1, 2, and 3)

C. Economic behavior and nature

Heilbroner and Thurow (Chapter 4)

II. THE MARKET MECHANISM

A. Supply and demand - basic forces determining prices and quantities in a market system.

Heilbroner and Thurow (Chapters 5, 6, 7, and 8)

B. Market movement - definition and determination of demand and supply elasticities, and the effects of shifts in demand and supply functions.

Heilbroner and Thurow (Chapter 9)

C. Market failure

Heilbroner and Thurow (Chapter 10)

III. ECONOMICS OF THE FIRM

A. Perfect competition - baseline model for understanding and measuring economic performance.

Heilbroner and Thurow (Chapters 11 and 12)

B. Monopolies and oligopolies - models of imperfect competition

Heilbroner and Thurow (Chapters 13 and 14)

IV. HEALTH ECONOMICS

A. Health services industry

Feldstein, Paul J., Health care economics (John Wiley & Sons, New York, 1983)

Chapter I - An introduction to the economics of medical care, pp. 1-14.

Chapter II - The production of health: the impact of medical services on health, pp. 15-31.

Chapter III - An overview of the medical care sector, pp . 32-44.

Chapter IV - Measuring changes in the price of medical care, pp. 45-64.

B. The demand for health services and health insurance

Feldstein, Paul J., Health care economics

Chapter V - The demand for medical care, pp. 77-109.

Chapter VI - The demand for health insurance, pp. 110-134.

Chapter VIII - The market for health insurance: its performance and structure, pp. 151-168.

Articles:

Phelps, Charles E., "Effects of insurance on demand for medical care". in Ronald Anderson, J. Kravits, and O.W. Anderson (ed.) Equity in health services (Cambridge, Mass., Ballinger, 1975) pp. 105-130.

Manning, Willard G., et al., "A two-part model of the demand for medical care: preliminary results from the health insurance study". In health, economics, and health economics. J. Van Der Gaag and M. Perlman/editors. North Holland Publishing Co., Amsterdam, 1981, pp. 103-123.

Newhouse, J.P., et al., "Some interim results from a controlled trial of cost sharing in health insurance". New England Journal of Medicine, vol. 305, No. 25, December 1981, pp. 1501-1526.

C. Production and supply of health services

1. Overview

Feldstein, Paul., Health care economics

Chapter VII - The supply of medical care: an overview, pp. 143-150.

2. Hospitals

Feldstein, Paul J., Health care economics

Chapter X - The market for hospital services, pp. 198-247.

Chapter XI - Relying on regulation to improve hospital performance, pp. 248-325.

Articles:

Harris, Jeffrey E., "The internal organization of hospitals: some economic implications," Bell Journal of Economics, Vol. 8, No. 2, 1977, pp. 467-482.

Langwell, Kathryn M. and Sylvia F. Moore, "A synthesis of research" . . . "Evidence on competition in the market for hospital services," pp. 1-26.

Lee, Maw Lin, "A conspicuous production theory of hospital behavior," The Southern Economic Journal, Vol. 38, No. 1, 1971, pp. 48-58.

3. Physicians

Feldstein, Paul J., Health care economics

Chapter IX - The physician services market, pp. 169-197.

Articles:

Langwell, Kathryn M. and Sylvia F. Moore, A synthesis of research. . . "Evidence on competition in the market for physicians' service", pp. 27-33.

Newhouse, J.P., "The economics of group practice," The Journal of Human Resources, Winter, 1973, pp. 37-56.

4. Competition

Feldstein, Paul J., Health care economics

Chapter XII - The benefits of competition in medical care, pp. 326-357.

UNITED STATES OF AMERICA

I. Postgraduate level
two semester course
less than 80% health economics

1. OUTLINE OF POSSIBLE TOPICS

Economic theory and methods
Consumer behavior and demand
Cost and production
Competitive equilibrium and the medical market
Monopoly and price discrimination
Oligopoly
Derived demand
Public policy topics
- Role of government
- Equity
- Cost-benefit analysis
- Decision analysis

Most commonly used textbooks:

Mansfield, Edwin, Microeconomics, 5th Edition, new york: W.W. Norton, 1982.

Newhouse, Joseph, The economics of medical care: a policy perspective, Massachusetts: Addison-Wesley, 1978.

UNITED STATES OF AMERICA

I. Postgraduate level
two semester course
less than 80% health economics

2. REPRESENTATIVE SYLLABUS

Economics and health policy analysis

Texts: Microeconomics, 5th edition; Mansfield, Norton, 1982
The economics of medical care, Newhouse, Addison Wesley, 1978.
A primer for policy analysis, Stokey and Zeckhauser; Norton, 1978;

Other readings will be on reserve in the library.

Objectives: To show how economists think generally and how they think about health care. To show how policy analysts think. To give examples and practice with the simple concepts that economists like to use. This course won't be comprehensive or deep, but I hope that you learn something and enjoy it. Later courses will provide more challenging applications of this material.

ECONOMICS

I. Economic theory and methods:

Reading: Mansfield chapter 1.
Alternate: Stigler pp. 1-20.
Optional: Medical care facts from Newhouse: Introduction on health U.S.

Cliches: Economics: How resources are used to satisfy wants.
Resources are scarce, desires unlimited.
People do and governments should choose to maximize utility.
Assume we have a can opener (free market).

This is basically an economic problem.
"Proof": the regression line slopes upwards.
Any data can be redeemed by econometrics.

Concepts: Graphs, total product, average, marginal, slope as marginal, area under marginal is total.
(Handout of Hirschleifer, chap. 2.B; or Mansfield, pp. 157-162.)

Reading: Mansfield, chapter 2.

Cliches: Carlyle's parrot: supply and demand, squawk!
Price matters

Concepts: Elasticity, equilibrium price, effects of shifts, taxes, floors.

II. Consumer behavior and demand:

Reading: Mansfield, chap. 3 (not 72-75); Stokey and Zeckhauser, chap. 3.

Cliches: Put your money where your mouth is.
Equate marginals.
Money illusion (inflation is irrelevant).
One man's meat is another man's poison (tastes differ).
Tastes or demand for medical care (not "need").

Reading: Mansfield, chapter 4; chapt. 5.
Counter: (Thaler 1980).

Concepts: Luxuries. Inferior goods. Market is sum of individual demands. Substitutes increase elasticity of demand curves. Budget line (with money representing "everything else"). Indifference curves topologically map a preference mountain. Flows of services from stocks of durable goods. CPI, consumers surplus. Discounting of benefits.

Reading: Newhouse, chapter 2; Manning, 1985; Newhouse, "Interim results", Keeler and Rolph (1983).

Concepts: Rational consumer, risk aversion, demand for insurance, moral hazard, deductibles.

III. Costs and production:

Reading: Mansfield, chapter 6, 7; Stokey and Zeckhauser, chapter 10.
Optional: Newhouse, 68-73; Schwartz et al., 1985; Neuhauser & Lewicki; Luft and Crane; Luft, Bunker, and Enthoven.

Cliches: No free lunch (opportunity costs).
More than one way to skin a cat (costs after adjustment).
Time is money (other hidden costs).
Don't cry over spilled milk (forget sunk costs).
You can have too much of anything except money.
Home Ec. - Households produce satisfaction from capital, time.

Concepts: Opportunity costs, private and social, short- and long-run costs, willingness to pay for nonmonetary benefits.
Diminishing returns, economies of scale.
Discounting of costs, durable goods.
Present value and amortization.

Cases: Purchase machine?

IV. Competitive equilibrium and the medical market:

Reading: Mansfield, pp. 231-253; 458-471; Newhouse, chaps. 4, 6.
Optional: Manning 1984, Enthoven (NEJM, 1978).

Cliches: Markets are nicer than laws (since trade is voluntary).
The free market is best except for . . .
Sit in the dark and wait for the invisible hand.
The medical marketplace is not free (it is not even cheap).
It needs either regulation or competition.

Concepts: What is connection between price and value?
Perishing commodities, such as services, fresh fish

How can there be competition for medical services?
Efficiency vs. selection in DRGs or capitation.
How are hospital and physician prices set?

Case: Health promotion.

V. Other topics in economics:
Monopoly, price discrimination, oligopoly:

Reading: Skim Mansfield, pp. 276-284, 296-304, 347-364.
Optional: Kessel, Benham.

Cliches: Cartels never last without government help because of free riders.
The AMA and medical ethics protect the medical cartel.
"Professional ethics" are usually self-serving.

Concepts: What is monopoly, how does it price?, Barriers to entry, prisoner's dilemma, evolution of cooperation

Derived demand and rents:

Reading: Mansfield, chapter 12; Newhouse et al., 1982.
Optional: Newhouse, chapters 2, 5; Fuchs, chap. 2. Brook et al., 1983.

Cliches: No such thing as a shortage or surplus?
Except for union members, people are paid what they are worth.
Lifestyles, not doctors, determine health.

Concepts: Determination of wages, rents.

POLICY ANALYSIS

I. Why should government act?

Reading: Stokey and Zeckhauser, chapter 14;
Optional: Mansfield, chapter 16; Fuchs chaps. 6, 7; Hardin (1968)

Concepts: Market failure: efficiency. Public goods, externalities, natural monopoly, insurance.
Redistribution: equity. But owners take good care of their property (commons).

II. How to decide what to do:

Reading: Stokey and Zeckhauser, chapters 1, 2, & 4.

Cliches: You can't do it all, choices must be made.
Not acting is a choice.
Formal methods are clearer.

5 steps: What is the real problem (not solving the wrong problem).

What are alternatives (better alternative beats best choice).

What will happen? (Models: Better to be roughly right than exactly wrong - the simplest model that fits).

Value the outcomes (Compared to what? Separate values from judgments).

Judge policies by expected results, (aid to judgment, but not answering machine).

Concepts: Model, state, difference equation, equilibrium, simulation.

III. Cost-benefit analysis:

Reading: Berwick, Cretin, and Keeler, pp. 76-88, 268-288.
Stokey and Zeckhauser, chapter 9.
Optional: Acton, P-5675.

Concepts: Maximize net benefit, consumer surplus, discounting, present value and amortization, cost-effectiveness, comprehensive, operational attributes, proxies.
Value of life-saving, discounting lives.
Marginals for amounts, totals for whether.

Case: Motorcycle helmets.

IV. Decision analysis:

Reading: Stokey and Zeckhauser, chapter 12.
Optional: Weinstein and Fineberg Book; Keeler, P-5603.

Concepts: Decision tree, Bayes theorem, averaging out and folding back, value of information.

Case: Shed load decision or value of test introduction.

Problems with government actions: (Nonmarket failures) -No class, but you might read it on your own.

Reading: Wolf.

Cliches: Need-related gives incentives to become or look needy.
Tip of the iceberg (NH).
They'd rather have the money.
Individualized programs are corruptible.
Competition to change rules is inefficient (capture theory).
Government money costs more than private.
Old bureaus never die.
Nonmarket rationing has hidden costs (e.g., queues).
Let them sell vouchers.

Other interesting topics: Lemons (Akerlof), insurance equilibrium (Rothschild-Stiglitz), principal-agent, reputation and licensing, trust and transaction costs.

MEDICAL SCHOOLS

A. Medical schools
less than one semester
less than 80% health economics

INTRODUCTION

Reproduced below are some representative syllabi for various length courses taught in the medical curriculum by health economists around the world.

A. OUTLINE OF POSSIBLE TOPICS AND SYLLABI

Overview of the health care system
Competition among health care plans
Current regulations
Reimbursement systems
- Medicare and medicaid
- HMO's
- DRG's
- Role of private insurance

Medical ethics
- Equity questions
- Advertising
- Licensing restrictions
- Access to medical care
- Cost containment techniques

Most commonly used textbooks:
- None

2. REPRESENTATIVE SYLLABUS

England

One hour seminar for second year medical students

WHAT DO THE HEALTH SERVICES COST?

1. Health expenditure in the United Kingdom

Most of the money required for the national health services (NHS) is obtained from taxation; relatively little of the costs of the NHS is funded by national insurance contributions and payments by some patients for items such as prescriptions, dental treatment and spectacles.

Expenditure on services and buildings in the NHS has risen markedly since its inception even when the falling value of money due to inflation, etc., is taken into account. There has, of course, also been an increase in population over this period, but when NHS expenditure per head of population is taken, we find that there has still been a greater than threefold real increase in the period 1949-1981.

NHS expenditure has also been taking up an increasing proportion of the national income (gross national product OR GNP).

NHS as a % of GNP (U.K.)

1951	3.92
1981	6.51 (Provisional)

(Gross national product or income is defined as the total value of all goods and services produced in the economy by residents of the U.K. and therefore includes income from their activities in other countries.)

Within the health service, expenditure is divided up between the various types of service as follows:-

	1951(%)	1980(%)
Hospital services	55.7	61.1
Pharmaceutical services	9.7	9.5
General medical services	9.5	6.4
General dental services	7.8	3.9
General ophthalmic services	2.8	0.9
Community health services (Home nurses, health visitors, etc.)	8.5	6.3
Other	6.0	12.0
All NHS	100.0	100.0

Two of many possible reasons for the lack of relationship between health spending and a crude health indicator such as mortality are:-

1. Postponing mortality is only one part of what health services are trying to achieve, i.e. they are also concerned with alleviating pain, reducing disability, etc.

2. Many of the determinants of premature death lie outside the health care field. During the last 25 years or so, mortality rates in nearly all age groups in the U.K. have fallen. However, we cannot say that this has been entirely due to health care. There have probably been a variety of reasons such as improved housing, education, nutrition, clean air control, etc.

2. REPRESENTATIVE SYLLABUS

England

PROGRAMME FOR HEALTH ECONOMICS COURSE
10 SESSIONS

This is a provisional timetable, and there may be some changes made in it during the course of the term.

1. Introduction

No reading is required for the specific purposes of this lecture. The readings that follow are the general background reading for the course as a whole. These readings should be treated as an introduction to the course in health economics, rather than as material that is to be used for revision purposes. It is expected that all students will have familiarised themselves with these by the third week of the course, and it is for this reason that no essay is set for the first three weeks.

M. Drummond, "Principles of economic appraisal in health care", OUP, 1980.

G. H. Mooney et al., "Choices for health care" MacMillan Press, 1980.

M. Patel, "Literature review, supplement No. 1 - Health economics", Unit for Continuing Education, Department of Community Medicine, University of Manchester, 1984.

2. "Macro-economics of NHS in UK & comparison of European health systems"

First chapter on the UK in: "Health services prospects" eds. G. McLachlan & I.D. Wilson, Nuffield Provincial Hospitals Trust, and The Lancet, 1973.

The introduction of: A british descant of the theme in: "Prelude to harmony on a community theme: health insurance in Britain and the Six" G. Forsyth with J. Van Languendonck, OUP for Nuffield Provincial Hospitals Trust, 1975.

A pamphlet entitled: "Understanding resource allocation in the NHS - The Development of RAWP", R.M. Varley. Available from Miss Carole Pennington, Health Services Management Unit, Manchester Business School, Booth St. West, M15 6PB (<1.00) (Cheques to "Health Services Forum")

3. Microeconomics

Topics: "The value of life, the supply of & demand for health care, rationing of health care"

There is no reading set this week, but an essay should be prepared, to be submitted at a seminar.

4. Clinical budgeting

Essay to be submitted. The MFCM paper last year had a question on this subject. They say lightning never strikes twice. But if it does, there is no excuse for being unprepared!

Essay Title: "The implications of clinical budgeting for medical ethics"

B. Steel: BMJ 1984 paper. A critical review of clinical budgeting. Reference to follow.

I. Wickings et.al 'A review of clinical budgeting & costing experiments' BMJ 12 Feb. 1983 pp. 575-577 The Griffiths Report.

5. Cost effectiveness analysis

Culyer & Wagstaff 'Cost effectiveness of foam elastomer & gauze dressings in the management of open perineal wounds' Soc. Sci. & Med., 1981, Vol. 15, pp 3-11.

Section on cost effectiveness analysis in: M. Patel, 'Literature review, supplement no.1 - Health Economics', Unit for Continuing Education, Department of Community Medicine, University of Manchester, 1984.

Be sure to read the paper by Beresford, both papers by Culyer, the paper by Russel, and the paper by Williams. All references in above document (Patel 1984).

6. Cost effectiveness & cost benefit analysis: part II

A discussion of results obtained.

7. The RAWP report

Mr. Sharples, currently treasurer at Thameside, was a member of the original RAWP committee. I suggest you reread the RAWP document, and the Palmer & West reference from the literature survey (Patel 1984).

8. Investment appraisal

A. Cochrane 'Effectiveness & efficiency, Nuffield Provincial Hospitals Trust, B. Jennet 'High technology medicine' Nuffield Provincial Hospitals Trust, chapters 2, 4, 5, & 6.

Sugden & Williams 'The principles of practical cost-benefit analysis' OUP 1978 Chapters 3, 4, 13, & 16.

9. Economics of pharmaceuticals

R. Blum (ed.) 'Pharmaceuticals & health policy', Croom Helm.

W. Duncan Reekie & M. Weber 'Profits, politics & drugs' Macmillan, 1979.

Pedroni (1984) reference from Patel (1984) Survey

WHO. The selection of essential drugs/Essential drug list

10. Part I: Clinical budgeting

Part II: Performance indicators

P. Drummond 'Adding up the score' H&SSJ Sept 15 1984 pp. 1108-1109.

Michael Goldarce & Kimberly Griffin 'Performance indicators: A commentary on the literature' Unit of Clinical Epidemiology, University of Oxford 1983.

M. McCarthy 'Are efficiency measures effective? H&SSJ Dec 15, 1983 pp. 1500-1501.

D. Mowbray 'Just what are we trying to achieve' H&SSJ Sept 15 1984 pp. 1110-1111.

E. Scrivens & J. Charlton 'Warning lights' H&SSJ Dec 15, 1983 pp. 1501-1502.

J. Yates 'When will the players get involved? H&SSJ Sept 15, 1984 pp. 1111-1112.

11. Revision & discussion

2. REPRESENTATIVE SYLLABUS

England

TWO-WEEK COURSE
HEALTH ECONOMICS

This lecture discusses the basics of health economics and introduces some of the key economic concepts that are relevant to health such as opportunity costs, supply and demand, marginal costs, and social time preference. Examples are used to highlight the importance of marginal costs in deciding how far to pursue a health programme, and of opportunity costs in deploying scarce resources between competing ends. The techniques of cost-effectiveness analysis and cost-benefit analysis and their application in the field of health care are discussed. The pursuit of economic efficiency in the District is described, with particular reference to resource allocation and the problems of a resource-losing district. This is illustrated by the work of the Value for Money Team.

Recommended reading: "Essentials of health economics"- M. Drummond and G. Mooney "Choices for health care" - G. Mooney et al. (1980)

2. REPRESENTATIVE SYLLABUS

Scotland

Section A : Preface and introduction to community medicine

SECTION B

METHODS OF INVESTIGATION:-

EPIDEMIOLOGY: ECONOMICS: INFORMATION SERVICES: EVALUATION

To assist in answering questions about identifying our health problems and the extent to which our health service meets these problems, community medicine uses various methods and measurements. These are described in this section.

STUDENTS SHOULD KNOW

(i) the epidemiological method of studying disease causation

(ii) the main sources of information about disease and death in Britain and how it is collated from the individual to national statistics

(iii) at least in general terms, the epidemiology of

(a) the more common cancers (e. g. lung, alimentary, urogenital, haemopoietic)

(b) the major cardiovascular diseases (e.g. coronary artery disease, hypertension and stroke)

(c) other chronic degenerative and occupational disorders (e.g. chronic bronchitis, arthritis, pneumoconiosis and asbestosis)

(d) significant infections and tropical diseases e.g. malaria, rubella, whooping cough)

(iv) for these more important medical problems the size of the problem-morbidity and mortality; the relationship to age, sex, occupation, personal habits and living conditions; time trends and geographical variations; and current hypothesis of causation and the evidence for them.

STUDENTS SHOULD BE ABLE TO

(i) apply the epidemiological method of analysis to their clinical knowledge of a disease

(ii) interpret data and assess the validity and generalisation of conclusions of an epidemiological study

(iii) calculate simple incidence and prevalence rates

(iv) list, for any individual, the factors known to create risk of particular diseases and outcomes

(v) design an investigation of an epidemic of an acute or chronic disease

(vi) Recognise the continuing application of epidemiology in day to day clinical practice.

STUDENTS SHOULD APPRECIATE

(i) the philosophy of evaluation and the need to know that the treatment they give is effective, acceptable and making the best use of resources;

(ii) the concept underlying the process of peer review (or medical audit) and the need to participate in such exercises.

CONTENTS

1. Definitions & techniques used in epidemiology.
2. Health economics.
3. Information services.
4. An evaluation framework.
5. Sources of information.
6. Notifiable diseases.
7. Assessing the "health" of a community.
8. International variations in disease.

Recommended reading

There is no one textbook which fully covers all aspects. The essential chapters in textbooks recommended for the course are underlined in the lists below. Also included is a range of further sources depending on the particular issue that individual students may wish to pursue.

Epidemiology

(a) Introduction

Any of these four will provide a suitable introduction and the differences between them is merely in detail.

Alderson, M	"An introduction to epidemiology". Macmillan 1976, chapters 1 and 2 (614.4)
Farmer, R D T and Miller D L	"Lecture notes on community medicine" Blackwell 1977, chapter 3 (614.4)
Roberts, C J	"Epidemiology for clinicians". Pitman Medical 1977, Chapters 1 and 2 (614.4)
Rose, G and Barker, D J P	"Epidemiology for the uninitiated". B.M.A., 1979 (614.4)

(b) Specific conditions

Doll, R	"Prevention of cancer; pointers from epidemiology". Millfield 1967, chapters 2 and 4 (614.5999)
"Medical aspects of home hazards".	Reported by the Medical Commission on Accident Prevention 1972 (614.853).
Morris, J N	"Uses of epidemiology". Churchill Livingstone 1975, Chapter 7 (614.4)
Office of Health Economics	"Preventing bronchitis" Paper no. 59 1977. (P614.5923)

(c) Sampling and standardisation

Bradford Hill, A	"A short textbook of medical statistics". Hodder & Stoughton 1977, chapters 10 and 17 (610.182)

Health services research and evaluation

Barker, D J P and Rose, G	"Epidemiology in medical practice". Churchill Livingstone 1976, chapter 10 (614.4)

Holland, W W and Gilderdale, S — "Epidemiology and health". Kimpton 1977, chapter 1 (614.4)

Morris, J N — "Uses of epidemiology". Churchill Livingstone 1975, chapter 3 (614.4)

Health economics

Drummond, M J — "Principles of economic appraisal in health care". Oxford Medical Publications 1980 (338.4761)

Mooney, G H, Russell, E M and Weir, R D — "Choices for health care". Macmillan (338.4761)

Williams, A and Anderson, R — "Efficiency in the social services". Basil Blackwell and Martin Robertson, 1975 (338.4736)

Articles

(All available in one booklet in Community Medicine Library)

Buxton, M J and West R R — "Cost benefit analysis of longterm haemodialysis for chronic renal failure BMJ 17th May 1975 (F6105 BM.)

Piachaud, D and Weddell, J — "The economics of treating varicose veins". International Journal of Epidemiology, Vol. 1, No. 3, 1972

Simpson, P R and Chamberlain, J — "Choice of screening tests". Journal of Epidem. Community Health 32 (3) 166-70 1978 (F6105 Br. J)

Williams A. — "One economist's view of social medicine". ibid. 33(1) 3-7 1979 (F6105 Br. J)

Wright, K C — "Measurement of costs and benefits in health and health services". ibid. 33 (1) 19-31 1979 (F6105 Br. J.)

Health information services

Alderson, M — "An introduction to epidemiology" Macmillan 1976, chapter 3 "Sources of routine data (614.4)

Farmer, R D T and Miller, D L — "Lecture notes on community medicine". Blackwell 1977, chapter 2 "Health information" (614.4)

"Health services : Concepts and information for national planning and management". 1977 Public health paper No. 67, World organisation (361.2)

Finally if you are seeking information on a particular subject the reference list at the end of "Uses of epidemiology" (Morris 1975 p284) is one of the most useful starting points that you will be able to find - good hunting!

2. REPRESENTATIVE SYLLABUS

CANADA

HEALTH ECONOMICS I: Economic evaluation techniques

The objectives of this session will be:

i) to introduce the various types of economic evaluation techniques (cost-minimization analysis, cost-effectiveness analysis, cost-benefit analysis and cost-utility analysis), and to enable participants to understand and distinguish each type.

ii) to provide participants with an approach for assessing the quality of an economic evaluation.

iii) to allow participants to discuss their questions and concerns about the role and conduct of economic evaluation of health services.

The readings for this session are:

1. "Clinical epidemiology rounds: How to read clinical journals: VII. To understand an economic evaluation (Part A) "Canadian Medical Association Journal, Vol. 130, June 1, 1984, pp. 1428-1433.

2. "Clinical epidemiology rounds: How to read clinical journals: VII. To Understand an economic evaluation (Part B) "Canadian Medical Association Journal, Vol. 130, June 15, 1984, pp. 1542-1549.

3. Boyle, M.H., Torrance, G.W., Sinclair, J.C. and Horwood, S.P. "Economic evaluation of neonatal intensive care of very-low-birth-weight infants", New England Journal of Medicine, vol. 308, June 2, 1983, pp. 1330-1337.

OPTIONAL:

4. Sinclair, J.C., Torrance, G.W., Boyle, M.H., Horwood, S.P., Saigal, S. and Sackett, D.L. "Evaluation of neonatal-intensive-care programs", New England Journal of Medicine, vol. 305, August 27, 1981, pp. 489-494.

The format for this session is as follows:

A. The first half of the session will be devoted to:

i) defining and clarifying the economic concepts underlying the economic evaluation approach

ii) discussing the role and usefulness of the four types of economic analyses in evaluation treatment alternatives.

Participants are asked to complete the first reading in preparation for this portion of the session.

B. For the second half of the session participants will be divided into their small groups, where pre-assigned tutors will lead the groups in discussing the quality of a specific economic evaluation (neonatal intensive care).

In preparation for the discussion, participants are asked to complete the second reading, and then to read the attached hypothetical problem, "Economic analysis of neonatal intensive care." Using the 10 point checklist found in part B of the second reading, participants are asked first to evaluate the evidence provided in the Boyle et al. article (the article by Sinclair et al. may also provide useful background information), and then to apply this evidence to the questions posed in the problem.

2. REPRESENTATIVE SYLLABUS

Australia

CLINICAL ECONOMICS

COURSE OUTLINE

Objectives: The aim of the course is to introduce you to a subset of health economics which we have called clinical economics. At the end of the course you should be able to understand and critically evaluate articles in the area of clinical economics

Outline: The course will consist of 12 three hour sessions. Each will be built around a module which will consist of a short description of the subject, a reading list of two or three crucial articles, and a number of questions/exercises. You will be expected to have prepared answers to the questions/exercises for discussion in the class. Each week one question must be handed in for the purposes of assessment.

Topics will include the cost of illness, cost and cost-minimisation analysis, cost-effectiveness, cost-utility and cost-benefit analysis, decision theory, and special problems of health economics in developing countries.

Assessment: One question must be handed in each week and will count for assessment. In addition, you will be asked to complete a report on clinical economics. Details will be provided at a later date.

Reading: Reading lists will be included in each module.

2. REPRESENTATIVE SYLLABUS

New Zealand

THE COMMUNITY HEALTH ATTACHMENT

A. TIMING

The community health attachment is held in parallel with the psychological medicine attachment. Mondays and Fridays are devoted to community health.

B. TEACHING

Content
The programme in community health will consist of seminars, visits and projects. The main areas to be covered include:

1. Health risks and their prevention. Introduction to the major factors affecting health in the population and discussion of primary and secondary prevention techniques.

2. Community based care. Description of the various constituents of community care and analysis of how they interact to meet the needs of the patient.

3. Health care system. Description of the structure and financing of the health care system, including the private/public mix, the role of the A.C.C. and area health boards.

Seminars
A series of seminars will be held on each of these topics and the timetable for these will be available at the beginning of the attachment.

Reading
A book of readings will be distributed free-of-charge to students and relevant material must be read prior to each seminar. In addition, the textbook is required reading.

Projects
Students will be required to undertake a number of projects as part of the community health attachment. At least one of these will involve working together as a group. The purpose of these is to introduce students to community health issues in an involved and participatory manner. There will be one project in each of the three main areas listed above.

Visits

A number of visits to community-based agencies are included in the attachment. Details of these will be given in the timetable.

C. ASSESSMENT FOR TERMS

The award of terms will be dependent on satisfactory attendance and performance during the attachment. Students will be assessed on their contribution to the professor as well as performance on a short answer examination on material covered in the course of the attachment.

D. TEXTBOOK

In addition to handouts the following book is required reading:

Department of Health HEALTH FACTS NEW ZEALAND, Government Printer, 1983.

2. REPRESENTATIVE SYLLABUS

New Zealand

1. HEALTH ECONOMICS

COURSE OBJECTIVE: to develop an understanding of the economic aspects of the health sector, and foster an ability to apply selected economic concepts and techniques to health policy.

SESSION 1:

TOPIC: What is health economics? An introduction to some core concepts in economics: 'scarcity', 'opportunity cost', 'substitution at the margin', and 'efficiency'. Are these relevant to health and health services?

READING: Fuchs,V., 'Problems and choices',Who shall live? Health, economics & social choice, chapter 1, 1974, pp. 9-29.

McKenzie,R., 'The economists paradigm', in McKenzie, R. (editor), Economic issues in public policies, 1980, pp. 1-19.

SESSION 2:

TOPIC: Allocating scarce resources: 'free market', 'modified market' and 'state' systems. What are the key characteristics of each?

READING: Maynard,A., 'The regulation of public and private health care markets' in McLachlan, G. & Maynard, A. (editors) The Public/Private Mix for Health: The relevance & effects of change, 1983, pp. 471-512.

SESSION 3:

TOPIC: An economic anatomy of New Zealand's health system: resource allocation by a modified market and the State.

READING: Salter, D.M. Who pays for what? An analysis of expenditure on health services in New Zealand, 1960/61 - 1981/82, Paper presented at ANZSERCH Annual Conference, Dunedin, 18 May 1984.

Tatchell,M. 'A comparative examination of the Australian & New Zealand health systems', Community Health Studies VI (3) 1982, pp. 274-291.

SESSION 4:
TOPIC: Economic Aspects of occupational and environmental health: the cases of cotton dust and asbestos.

READING: McKenzie,R. 'Regulating the health of workers: the case of cotton dust standards' in McKenzie,R. (editor) Economic issues in public policy, 1980, pp. 125-141.

Data set on 'Asbestos & its impact on health'

SESSION 5:
TOPIC: Economic aspects of prevention: the case of cigarette smoking.

READING: Atkinson,A.B. & Townsend, J.L., 'Economic aspects of reduced smoking',The Lancet, Sept. 3 1977, pp. 492-494.

Salter,D.M. Fiscal policy -its influence on smoking A paper presented at the Inaugural meeting of Action on Smoking & Health (ASH), Wellington Division, Wellington, 2 May 1984.

SESSION 6:
TOPIC Regulating the public/private frontiers: the case of surgical treatment in the NZ health care system.

READING: Fougere,G., 'Public/private interactions in the NZ hospital sector' in Salter,D.M. (editor), A Symposium on health planning & resource allocation, Wellington, 1981, pp. 39-48.

Klein,R., 'Private practice & public policy: regulating the frontiers', in McLachlan, G. & Maynard,A., (editors) The public/private mix for health, 1983, pp. 95-128.

SESSION 7:
TOPIC: Aids to efficiency in government allocation of scarce health care resources: programme budgeting and responsibility budgeting.

READING: Mooney,G. et al, 'A framework for evaluation', & 'A casestudy in programme budgeting 'in Mooney,G. et al, Choices for health care, 1980, CHAPTERS 2 & 5, pp. 10-16 & 63-75.

Wickings,I., 'Review of clinical budgeting & costing experiments', British Medical Journal, 286, 12 Feb. 1983, pp. 575-578.

Williams,A., 'The budget as a (mis) information system in Culyer A.J. & Wright,A. (editors), Economics aspects of health services, 1978, pp. 84-94.

SESSION 8:

TOPIC: Economic criteria for health service decision-making: What would they be? How can they assist decision-makers?

READING: Culyer,A.J., 'Health - the social costs of doctors discretion', New Society, 27 Feb. 1975, pp. 517-519.

McKinlay,J., 'Evaluating medical care technology in the context of fiscal crisis', Milbank Memorial Fund Quarterly, 58 (2), 1980, pp. 217ff.

SESSION 9:

TOPIC: Economic appraisal techniques: cost-effectiveness & cost-benefit analysis I. What is the difference between C-E & C-B analyses? What are the key steps in undertaking an economic appraisal of a health programme?

READING: Drummond,M., 'Costs & benefits in health care' (CHAPTER 2) and 'Setting up an economic appraisal in health care' chapter 3) in Principles of economic appraisal in health care, 1980, pp. 10-26.

Neuhauser,D. & Lewicki,A.M., 'National health insurance & the sixth stool guaiac', Policy Analysis, Spring 1976, 2 (2), pp. 175-196.

Williams,A., 'The cost-benefit approach', British Medical Bulletin, 30 (3), 1974, pp. 252-256.

SESSION 10:

TOPIC: Economic appraisal techniques: cost-effectiveness & cost-benefit analysis II. critical evaluation of case studies.

READING: Hagard,S. et al, 'Screening for spina bifida cystica: a cost-benefit analysis', Brit.J. of Social & Preventive Medicine, 30, 1976, pp. 40-53.

Stason,W.B. & Weinstein,M.C., 'Allocation of resources to manage hypertension', New England Journal of Medicine, 296, March 31 1977, pp. 732-739.

2. REPRESENTATIVE SYLLABUS

UNITED STATES OF AMERICA

Health care economics
Medicine and society course

Upheaval in the health care system

A. Understanding the economics of the "new competition" in health care.
B. Deregulation, prospective reimbursement, competition and efficiency: Definition of the concepts, identification of the trends.
C. The rationale behind the shift toward prospective reimbursement and competition.
D. The main implications for the future and for health care professionals.

Assigned readings: (all are in the Syllabus)

1. Preview Basic economic concepts for study and review (2 pp.) You should seek to understand each of these basic concepts clearly by the time you complete the reading and lectures.
2. "The new competition' in health care; implications for the future", W.W. McMahon, in Money, power, and health, (Forthcoming 1986).
3. "The upheaval in health care", Business Week.
4. "The production of better health", W. W. McMahon (2pp.).
5. "Supply and demand", R. Dorfman (Basic concepts).

The new competitive approaches

A. Competition among health care plans - the crux.
B. Description of current regulations and of the new competition.
C. Six essential elements if competition is to work effectively.
D. Review of basic concepts.
   1. "The federal role (Medicare HMO's and DRG's, de-regulation).
   2. Complete assignments listed under June 21.

Prospective reimbursement; the economics of HMO's and DRG's

A. The federal role (Medicare HMO's and DRG's, deregulation).
B. Basic elements: Establishment of cost (profit) centers, cost/effectiveness criteria for ranking procedures within each DRG.
C. The state role (HMO and Medicaid; de-regulation, price information.

Assigned Readings

1. HMO's: "Example of out of pocket co-payments under multiple choice", and "1986 Monthly rates", (2 pp.).
2. DRG's: "The federal role in changing health care financing", Carolyne Davis, parts I and II.
3. "Britain", The London Economist.
4. Optional: "Strategies for referring medicare's physicians payments" (via physician DRG's), N. E. Journal of Medicine

Medical ethics: distributive justice and social inequity aspects.

A. Distributive justice (social ethics) requiring both horizontal and vertical equity.
B. Who shall live? - Seven degrees of vertical equity defined.
C. Applications to problems with access, and with tax subsidies.
D. Relation of degrees of vertical equity to need-based financing.

Assigned Reading:

1. Feldstein, Ch. 18, "The role of government in health and medical care" (Market failure, and redistribution)
2. Silva, "Ethics, scarce resources, and the nurse executive".
3. "Uninsured? Find another hospital", Washington Post (2 pp.)

Health care economics/ethics group projects

A. Discussion of health economics and health-economics-related ethics issues today.
B. No new reading assignments.
C. All students participate. 5 people sign up for one topic. Each writes a short "slant". The topic then is presented as a group.
D. Important health economics/ethics oriented issues include:
   1. "Who shall live" - current economic/ethical dimensions to access, and how to reduce this serious problem.
   2. "Unethical barriers to entry" (e.g. barriers to advertising? excessive licensing restrictions? CON's?)
   3. Other gaps in the safety net (e.g. catastrophic insurance).
   4. Other issues in health economics and social ethics of interest to you.

2. REPRESENTATIVE SYLLABUS

UNITED STATES OF AMERICA

YEAR 2 PERSPECTIVES

ECONOMICS OF HEALTH CARE

I. Introduction to economics of health care

A. Allocation of resources
- Health care expenditures
- Health care as a percentage of GNP
- Allocation of health care resources
- Concepts of scarcity and choice

B. Microeconomics of health care
- Allocation through markets and prices
- Competition- meaning and characteristics
- Demand- health care applications
- Supply- health care applications
- Market price determination
- Advantages of market allocation

C. Markets for health care
- Market for physician services
  - Physician as provider
  - Physician as purchasing agent
- Market for hospital services
- Concepts of elasticity of demand and supply

D. Effect of third party payments on market allocation

II. Health care payment mechanisms

A. Insurance, access and demand
- Effects on consumer decision making
- Effects on prices

B. Private health care insurance
- Growth and scope
- Provision through employment
- Insurance companies' effects on health care

C. Public health care insurance
- Growth and scope
- Medicare- coverage and utilization
- Medicaid- coverage and utilization

D. Effects of increased access
   Increased demand
   Impact on growth of for-profit hospitals
   Increased use of technology

E. Reimbursement methodologies
   Cost-based reimbursement
   Prospective reimbursement
   DRG's

III. Power and decision making in health care

A. Physicians and power in health care
   Control over supply - "professional birth control"
   Physicians as gatekeepers
   Impact of physician net income

B. Loci of increased power in health care
   Hospitals
   The medical-industrial complex
   Government
   Courts and the judiciary
   Consumers

IV. Alternatives and solutions

A. Goals/objectives in health care
   Proportion of GNP to health care?
   How much technology?
   For whom?

B. Preventive medicine
   Education
   Lifestyles

C. Payment mechanisms- limits?

D. Technology- limits and utilization?

E. Innovations in delivery
   Hospice and home health care
   Outpatient treatment
   "Doc in the box"
   HMO's
   PPO's

F. Change economic incentive systems

2. REPRESENTATIVE SYLLABUS

UNITED STATES OF AMERICA

HEALTH ECONOMICS I AND II

I. Brief review of current issues in health economics

  A. Rising costs and the role of:
    1. government
    2. patients
    3. employers

  B. Death of the ignorant consumer paradigm
    1. changing physician/patient relationship
    2. rise of primary and preventive care

II. A lecture on the cost effectiveness of primary care and the economic way of thinking

  A. Victor Fuchs arguments in Who shall live?
    1. the contribution of medical knowledge to life expectancy
    2. relationship between income and health
    3. major causes of death by major age categories

  B. Implications of increasing supply of physicians

  C. Physicians as captains of the ship
    1. Fuchs arguments in Who shall live?
    2. Thurow arguments in NEFM
    3. Update on the Relman/Reinhardt debate

III. Alternative services and delivery systems

  A. Health care is market driven
    1. advertising
    2. consolidation
    3. indigent care

  B. Review of alternative health plans
    1. HMO, PPO model types
    2. the gatekeeper concept
    3. evidence on preventive health care in AHPs

  C. Notion of risk bearing for covered population
    1. scope of benefits
    2. timing of payments
    3. integration of insurance and delivery
    4. risk bearing

D. Conclusion on future role of primary care, preventive care, preventive care and the structure of the industry

Required Readings:

Fuchs, Victor, Who shall live?, New York: Basic Books, 1974. (excerpts)

Sutton, Harry L and Allen J. Sorbo, Actuarial issues in the fee-for-service/prepaid group, "Risk sharing in a fee-for service/prepaid medical group," Denver: Medical Group Management Association, 1983. (excerpts on Asbury Medical Group)

Thurow, Lester C., "Medicine vs. economics," New England Journal of Medicine 313, 10 (September 5, 1985) 611-614.

2. REPRESENTATIVE SYLLABUS

UNITED STATES OF AMERICA

PROGRAM IN HEALTH ECONOMICS
DEPARTMENT OF MEDICAL HUMANITIES

Program description

The program in health economics was begun in July, 1979 to provide education to physicians on health economics and cost-effectiveness in health care. Its existence reflects the belief that physicians must be trained to adequately balance treatment, cost, and outcome choices in their decisions regarding patient care. Program faculty instruct students on cost-effectiveness research findings for use in clinical courses: emphasis is on choices made in treatment and their economic consequences. In addition, faculty provide instruction on current health policy issues and federal legislation to keep students and faculty apprised of the overall health policy environment. The Program provides an organizational focus for research activities and publications for both scholarly and lay journals and magazines. Finally, the Program regularly coordinates consultations and speakers for the School of Medicine and the community at large.

Objectives

The health economics program has the following goals:

(1) Encourage physicians to deal responsibly with the economic consequences of their decisions.

(2) Prepare physicians for an active role in health-care policy making.

(3) Provide systematic and objective analysis of health policy issues.

(4) Encourage cooperation between the School of Medicine and the University

Curriculum

The following outline provides a brief description of courses offered by the program.

I. At School of Medicine the sequence of seminars in the economic aspects of medical care are designed for two purposes:

(1) to encourage students to deal responsibly with the economic consequences of their decisions;
(2) to provide students with the analytical tools required to evaluate health policy.

A. Sequence one

BSSH - Mini block (two seminars)	Introduction to economic issues in health care - This module introduces the concepts of scarcity, opportunity cost, and the need to choose between alternative uses of scarce medical resources. The module identifies the major economic problems and choices faced by the health care system today.

B. Sequence two

Proposed (two seminars)	The demand for medical care: the economics of third-party payments - this module concentrates on the determinants of the demand for medical care and particularly their relationship to insurance.

C. Sequence three

MESH II (two seminars)	Economic aspects of the physician-patient relationship - the responsibility of the physician for economic consequences of his decisions provides the focus of this module. The concept of cost-benefit analysis is introduced and applied to individual cases and procedures.
MESH III (two weeks-half days)	Health policy - a sequence of seminars is conducted analyzing the development of policy in the health field with emphasis on the political-economic context.

D. Sequence four

Elective (four weeks-half days)	Studies in the economics of medical care - an elective which allows students to become better acquainted with the analytical frame-work of economics. As a project, students will prepare a research protocol on a topic of special interest.
Elective	Problem solving and cost containment in clinical practice - students study probability and decision analysis, then choose a model of problem solving, and apply it through clinical experience with ambulatory and hospital patients.

B. HEALTH ECONOMICS IN MEDICAL EDUCATION

By

ALAN WILLIAMS

University of York, England

Excerpted from a paper given at XI Panamerican conference on Medical Education
Mexico City, December, 1986

All health care systems face severe resource constraints. Since the discipline of economics is essentially about how to optimise in the face of resource constraints, it has a lot to offer. But it needs careful interpretation and application by skilled health economists if it is not to be crass and misleading. Doctors need a thorough appreciation of basic economic concepts and techniques if they are to be used intelligently. The issue is then when and how to introduce what parts of the subject into the training and career development of doctors.

The reasons for including health economics are

1. that it can help us get better health outcomes with the limited resources available to us, and
2. that to reject help is unethical, since it will lead to avoidable death and suffering.

Before I expose to you the scope and content of health economics, I must explain the important distinction I wish to draw between a discipline and a topic. Economics is both a discipline and a topic, and that leads to confusion when people hear economists claiming expertise in areas which are not regarded by others as having anything to do with economics (e.g. the practice of medicine). By economics as a topic I mean taking the economic system as the subject to be investigated, and the presumption then is that economists have (or should have) special expertise in helping us to understand that topic.

This special expertise will have accumulated from sustained thinking over several centuries about how different economic systems work and develop, in the course of which it will have proved useful to use certain concepts and structural relationships, to ask certain questions, and to collect certain kinds of data. All of this then comes to constitute

the corpus of knowledge transmitted from one generation of investigators to the next, with increasing specialisation and internal subdivision of expertise as that corpus grows in volume and complexity. This "special expertise", or characteristic mode of thinking, is what I see as the discipline of economics.

The topic area of health economics is readily seen as being that of the provision of health care, but it is really much broader than that. It is also about the many other factors which may affect health (for better or worse): smoking, unemployment, income level, education, geographical location, etc. Within the provision of health care we could consider the relative roles of primary and secondary care, the appropriate design of treatment trials, the evaluation of high technology medicine, etc. Not all of these phenomena are instantly recognisable as "economic", yet they are matters on which I believe the discipline of economics has something valuable to contribute.

Economics should be regarded as a way of thinking about problems rather than as a body of factual knowledge with ready made answers. This is what gives the discipline its universality, for the facts about costs, and benefits, and constraints will vary from place to place, and from time to time, and thus will be specific to a particular context. But the best way of thinking about such problems is transferable from place to place, and changes only very slowly through time. So I am firmly convinced that economics needs to be taught as a reflective discipline, in the context of problem formulation and problem solving.

Teaching material, of the case-study type, is a very valuable teaching resource, and it needs to be tailored to the context in which the "student" sees him/herself at that particular stage in his or her career. Sometimes, where intensive small group teaching is possible, the participants can bring their own problems for discussion and analysis, which, when it works well, is the most compelling form of educational experience. But it is very time consuming, and a very high risk educational strategy, because the result depends on how "rich" the problem is in ramifications that can be explored from an economic viewpoint. Where appropriate case-study material is unavailable, another alternative is to take some published studies (e.g. clinical trials which claim to be "cost-benefit" or "cost-effectiveness" studies but contain no economics, or worse still, "wrong" economics!) and seek to identify their defects

and what would have to be done to remedy them. As a last resort (especially where time is short), we may simply have to rely on textbooks alone as a reference source for help in solving a problem, or as a means of exploring the wider implications of a concept or principle once its relevance has been established in the context of a case study.

REVIEW OF ENGLISH LANGUAGE TEXTBOOKS IN HEALTH ECONOMICS

By

Alistair McGuire and A. Ludbrook
University of Aberdeen
Scotland

Review of English language textbooks in health economics

by
Alistair McGuire and A. Ludbrooke
University of Aberdeen

(i) J.G. Cullis and P.A. West, The economics of health: an introduction, Oxford, Martin Robertson, 1979, pp. 309.

(ii) R.G. Evans, Strained mercy, Toronto, Butterworth & Co, 1984, pp. 390.

(iii) P.J. Feldstein, Health care economics, New York, John Wiley and Sons, 1983, pp. 573.

(iv) P. Jacobs, The economics of health and medical care: an introduction, Baltimore, University Park Press, 1980, pp. 309.

(v) G. Mooney, Economics, medicine and health care, Brighton, Wheatsheaf (forthcoming).

(vi) J.P. Newhouse, The economics of medical care, Massachusetts, Addison-Wesley, 1978, pp. 116.

General

The books reviewed vary in length from around 100 pages to over 500. The shorter texts (Mooney, Newhouse) deal with a more restricted range of topics. The other books all provide a broad coverage of the health economics field but with some variations. For example, only Cullis and West address the issue of developing countries whilst Feldstein provides the most complete coverage of the markets for factors, e.g. nurses and drugs.

Given the nature of the area, all the books tend to provide extensive references to the literature, although some of the North American texts are restricted to mainly US literature (e.g. Feldstein.). The textbooks are all predominantly concerned with the economics of health care or medical services. Whilst all the texts recognised the link with health, the importance given to this factor varies. Evans' analysis is entirely underpinned by the view that health care per se has negative utility and is only demanded for its impact on health. Newhouse, on the other hand, is concerned with the economics of medical services and analyses these as normal consumer goods, with health status as a dependant state.

With the exception of Evans, the North American texts tend to be more concerned with health care as a commodity and to present a

US market orientated approach, although Jacobs makes some references to the UK system. Evans' text provides comprehensive discussion of current Canadian policy issues throughout, and is to this extent "system dominated" although the analysis is, of course, general. Similarly, the choice of topic included in Mooney's text reflects the interests of the UK system (especially on issues such as ethics and equity) and draws on UK examples, but the analysis does have wider application. Cullis and West include specific chapters on different health care systems and Feldstein has one chapter on National Health Insurance but dealt with in the US context.

Audience

The textbooks reviewed include two aimed primarily at health care related disciplines (Jacobs, Mooney), two aimed at economics students but accessible to non-economists (Evans, Feldstein), and two primarily of use to economics students (Cullis and West, Newhouse).

The textbook by Mooney is mainly concerned with explaining how the tools of health economics can be applied to health service problems. As such, it covers the minimum of formal economics required to appreciate the later issues. Jacobs concentrates on presenting formal economic analysis, as it applies to the health care sector. It therefore reaches a more complex technical level.

Evans' book is specifically written to capture a dual audience, although a prior knowledge of economics is assumed for the purposes of formal analysis. However, this is largely confined to footnotes, making it possible for those without an economics background to follow the main arguments but the theoretical underpinnings will not be appreciated. Feldstein's text is aimed primarily at intermediate level economics undergraduates but is accessible to an audience with little formal training.

The texts by Cullis and West and by Newhouse are both aimed at economics students, mainly undergraduate, and are written at a corresponding level. Cullis and West is primarily, though not exclusively, a survey of the relevant literature, Newhouse is essentially a supplementary text, dealing with an analysis of selected issues.

Structure

To a certain extent, the structure of the books reviewed relates to their level and intended audience. Texts such as Feldstein and Jacobs which aim to teach economics, not just health economics, naturally give more coverage to standard issues of

supply and demand and the market as a resource allocation mechanism. These two textbooks bear the closest resemblance to standard microeconomic texts. Although Newhouse's text is more specialised in its coverage, it too adopts a fairly traditional approach of examining demand issues, supply issues and then the medical market place.

Cullis and West examine demand and supply issues but do not address in any depth the interactions between the two sides of the market. The section on demand concentrates heavily on the demand for health. The three texts discussed above concentrate far more on demand for health care or for health insurance.

The books by Evans and Mooney are both very different, structurally, from standard texts. Of all the textbooks reviewed, Evans most clearly embraces the special characteristics of the health care market and attempts to deal with them directly rather than as a series of "special cases". The special nature of the health/health care market implies that the demand and supply aspects are not clearly separable, as in the usual market structure. Therefore, Evans concentrates throughout on how the two sides interact (and also labels his sections "utilization" and "provision" rather than demand and supply, thereby pointing out the distinctive nature of his approach).

Mooney adopts a different approach, again partly dictated by the intended audience. The basic theory of demand, supply and the market is explained in one brief section but all the examples use non-health care commodities. The special problems created by health and health care are addressed directly in other chapters of the book. One of the objectives of the book, teaching simple economic concepts to health professionals, is therefore achieved without giving the impression that health care can be accommodated within the standard framework of supply, demand and market equilibrium.

All the textbooks reviewed are basically microeconomic in their contents, reflecting the state of the art in health economics. The nearest any of the books get to macroeconomics is in describing particular systems, expenditure trends etc. Issues relating to the interaction between health and the economy, such as the effect of unemployment on health, are not dealt with. Feldstein includes a chapter on the production of health, but its focus is limited to applications within the medical care sector. Questions concerning the role of housing, education, income etc. in the production of health tend to be ignored. As there is now a developing literature on some of these matters, future textbooks might be expected to give some space to macroeconomic topics.

All the books give some attention to policy issues, although the extent of the coverage varies. Evans is the most policy orientated, followed by Mooney. Apart from Feldstein and Newhouse, the books provide some coverage of welfare to market regulation and public policy.

The economic model

The three texts from the US (Feldstein, Jacobs, Newhouse) all approach health economics from a neoclassical, market orientated viewpoint. Special features of health care are treated as variations of the perfectly competitive model. In general, they all adopt utility maximisation as their behavioural paradigm although Feldstein uses the structure/conduct/performance approach to analyse the supply side of the market.

Cullis and West also rely heavily on utility maximisation as their behavioural paradigm but their analysis takes more account of the distinctive characteristics of the good. The analysis of government intervention does not rely on market solutions, as is the tendency with the US texts.

Evans' book is, throughout, a clear critique of the neoclassical approach to health economics. His "real world" analysis of the health care sector is compared at various points with the implications of the naive economic model and the naive medico-technical model. Evans' analysis shows how adopting either of these models leads to implausible solutions for policy problems. Various behavioural hypotheses are examined, particularly on the supply side, where the simple income-maximising assumption is refuted by empirical evidence. Evans is particularly critical of general utility maximising hypotheses. Unless the arguments of the utility function can be clearly specified this approach is seen to lead to tautology in the analysis, i.e. individuals maximise utility and utility is what individuals maximise. The policy implication of this analysis is given by quoting Dr. Pangloss: "all is for the best in the best of all possible worlds."

The text by Mooney uses the neoclassical model only to expound basic economic concepts. It is abandoned as soon as problems of health and health care are addressed. Several chapters are directly concerned with exploring the behavioural aspects of health care topics and the boundary between economics and philosophy, particularly in addressing issues such as ethics and equity.

GLOSSARY OF THE MORE COMMON TERMS ENCOUNTERED IN HEALTH ECONOMICS

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Note: Terms (other than reference titles) that are underlined in the text of entries are themselves entries in the glossary.

Adverse selection
The effect, where insurance premiums (or prepayments) are calculated according to the best available knowledge of the insurer, whereby an insured person having a lower expectation of the event occurring will find the premium excessive and no longer purchase insurance from that insurer, leaving him the worst risks and necessitating even higher premiums. As a result some people who would like to be insured no longer obtain insurance.

Agency relationship
The role of a physician or other health professional in determining the patient's best interest and acting in a fashion consistent with it. See Supplier induced demand.

Alternatives
A feature of all option appraisal is that various (alternative) courses of action are identified and evaluated.

Annual equivalent charge
That constant sum over time whose present value is the same as a capital cost.

Annuity
A constant amount of money per year received in perpetuity or for a specified period of time. The coupon on a bond.

Appraisal
See option appraisal.

Balance of care
The determination of the efficient (see efficiency) allocation of clients to types of medical care.

Benefit
The gains, before costs are deducted, of any particular course of action, therapy, treatment, preventive programme, etc. In principle, these gains are valued by the total amount that individuals are willing to pay to acquire them. In principle, again, since willingness and ability to pay are often correlated, an appropriate weighing system should be adopted to compensate for unequal abilities to pay. Similarly, in principle, weights are applied to different individuals when adding benefits accruing to different persons. In practice, due to the difficulties inherent in undertaking these tasks, some benefits are left in non-monetised form. Others, which may be in money form are simply added up, implying that the weight for each and every group is one. In such cases, distributional and aggregational issues are left to less formal methods of assessment. See health status, value.

Benefit-cost ratio
A statistic commonly used to describe the conclusion of a cost-benefit study. It is the ratio of the present value of benefits to the present value of costs. Given that the classification of some entities as costs or negative benefits, and benefits or negative costs, is ambiguous, the ratio can be a misleading indicator of efficiency. It is better to use the difference between the present values rather than their ratio.

Capital
Viewed variously as a physical stock of assets (buildings, land, plant, equipment, etc.), as a stock of financial assets (government bills, equities, bank balances, etc.), or as the present value of the net value of a stream of services over time that a particular asset or programme may yield. See also human capital.

Capitation
A method of paying medical doctors a fixed fee per patient registered with them (sometimes differentiated according to age of patient). Cf. fee-for-service.

Capital cost
The cost of acquiring, owning or using an item of capital equipment net of depreciation. See capital.

Cardinal utility
See utility.

Caring externalities
A type of utility. See external effects.

Certificate of need
A method of regulating hospital capital developments requiring state agencies to review and approve changes in hospital bed capacity and major purchases of equipment.

Clinical budgets
A procedure whereby physicians or teams of physicians in a given specialty in hospitals are assigned a fixed sum of money for their activity to cover the expenses of, for example, pharmaceutical prescriptions, use of pathology laboratories, staff salaries.

Coinsurance
See copayment

Constant prices
The use of the prices of a given year in calculating costs and benefits in other years so as to eliminate the effect of inflation. Usually done by means of a price index or price deflator. An example of such an index (deflator) is $\sum P_1Q_1/\sum P_0Q_1$, where P_1 is a set of prices at date 1, Q_1 is a set of commodities at that date and P_0 is the set of prices for those commodities at an earlier date.

Constraints
The limits (budgetary, resource, political, etc.) on what it is possible to accomplish. Careful examination of imagined constraints often results in their being seen to be moveable, though usually at some cost.

Consultation fees
A money charge made for consulting a doctor. The higher the charge is, the less frequently consultations will be sought. See demand for health services.

Copayment
An arrangement whereby an insured person pays a particular percentage of any bill for health services received, the insurer paying the remainder. (Cf. deductible).

Cost
See opportunity cost.

Cost-benefit analysis (CBA)
A method of comparing the costs and benefits of various alternative courses of action usually (though not necessarily) measured in monetary terms and present values. It entails the systematic comparisons of all the costs and benefits of proposed alternative schemes with a view to determining (a) which scheme or combination of schemes maximizes the difference between benefits and costs, or (b) the magnitude of the benefit that can result from schemes having various costs. The concept of cost or benefit employed is sometimes that of social cost or social benefit. However, in other cases the scope of the cost and benefit concepts is defined by the interests of the clients for whom the analysis is conducted after extensive discussion between

clients and analysts about the options to be considered and the objectives to be sought. See also cost-effectiveness analysis, and cost-utility analysis.

Cost containment
Controlling medical care expenditures within a pre-determined limit or range by limiting budgets (cash limits), imposing or increasing cost-sharing, using clinical budgets, etc.

Cost-effectiveness analysis (CEA)
A method of comparing the opportunity costs of various alternative courses of action having the same benefit or in terms of a common unit of output, outcome, or other measure of accomplishment. This procedure is used when benefits are difficult to value or when those that are measurable are not commensurable. It is similar to cost-benefit except that benefit, instead of being expressed in monetary terms or in terms of several noncommensurable benefits, is expressed in terms of a homogeneous index of results achieved, e.g. number of lives saved or number of days free from disease. See also cost-utility analysis.

Cost-efficiency
See efficiency.

Cost of ill-health
A narrow interpretation focuses on the financial consequences of poor health (often misleadingly described as "economic") such as lost earnings from work, expenditure on health services, drugs, etc. A wider interpretation seeks to identify the true social opportunity costs of being ill with perhaps shadow prices being attached to lost working time, family members' time spent nursing, health services received, etc.

Cost-sharing
Usually used to refer to a method of financing health care that involves some portion of the expenditure falling directly on the user. The cost is then shared between user and employer, government, taxpayer, insurance agency etc. It is viewed both as a means of deterring relatively trivial consumption due to a non-zero price-elasticity and as a means of enlarging the bases from which health services are financed.

Cost-utility analysis
A close relative of cost-benefit and cost-effectiveness analysis. More subtle measures of output are used than in cost-effectiveness analysis but money issues are not usually assigned, as in cost-benefit analysis, to health outcomes.

Deductible
The amount (usually annual) that an insured person must pay before entitlement to insurance cover begins.

Deflator
See constant prices.

Demand for health
The amount of health chosen as a function of various independent variables such as the rate of return, expected wages from work, and the price of health care. The demand for health services depends in part on the underlying demand for health.

Demand for health services
The rate of use of health service facilities as a function of various independent variables like price, distance from facility, time spent obtaining the service, income, wealth, educational attainment, etc. The income-elasticity has commonly been found to be less than one, so an increase in income normally leads to a less than proportionate increase in the demand for service. The price-elasticity is also usually low. See elasticity.

Diagnosis related group
DRGs are groupings of diagnoses according to their clinical similarity and the cost of treatment. Under US medicare, a patient is classified according to his DRG, of which there are about 460, and the provider is reimbursed by a fixed price for the "standard" treatment under that DRG.

Discount factor
See discounting for general description. The discount factor for year t is given by $1/(1 + r)^t$ where r is the annual discount rate. Thus, if $r = 0.1$, the discount factor for $t = 1$ is 0.909 and for $t = 5$ it is 0.620.

Discount rate
The rate of interest used to calculate a present value.

Discounting
A procedure for reducing flows of cost or benefits occurring at different dates intocommon measure by use of an appropriate discount rate. Thus, with an annual discount rate r (expressed as a decimal fraction) the present value (PV) of a cost (C) in 1 year's time is $PV = C/(1 + r)$.

Disease costing
A procedure for assigning the expenditures of a health system or part thereof to the particular disease for which care is provided.

Distribution factors
See equity.

Economic appraisal
See cost-benefit analysis, cost-effectiveness analysis, cost-utility analysis and financial appraisal.

Economics of health
See health economics.

Economies of scale
A result of increasing returns to scale: implying a falling unit cost as output rates increase, so long as input prices do not increase so as to offset the scale effect. See production function.

Effectiveness
A measure similar to efficacy except that it refers to the effect of a particular medical technology or procedure on outcomes when used in actual practice. It thus differs from efficacy in that efficacy concerns only the technical relationship between the procedure and its effects under "ideal" conditions. In economic jargon, the idea of effectiveness is encompassed within the notion of a production function.

Efficacy
Benefit or utility to the individual of the service, treatment regimen, drug, preventive or control measure advocated or applied. The probability of benefit to individuals in a defined population from a medical technology under ideal conditions of use. More generally, the effect of a particular medical action in altering the natural history of a particular disease for the better. See effectiveness.

Efficiency
In a restrictive sense defined either as minimizing the opportunity cost of attaining a given output or as maximizing the output for a given opportunity cost. The general term used by economists is known as "Pareto-efficiency". This is an allocation of resources such that it is not possible to reallocate them without imposing uncompensated losses on some individual. A variant is "potential Pareto-efficiency", where it is not possible to reallocate resources without imposing uncompensated losses on someone. It is common to see the notion of efficiency expressed at three different levels: technical efficiency, where more inputs are not used than are technically necessary to attain a given output; cost-efficiency, or cost-effectiveness, (see cost-effectiveness analysis) where a given output is produced using the least-cost technically efficient combination of inputs (or, conversely, output is maximized for a given level of cost); Pareto-efficiency, where output is not only technically and cost efficient but is also set at an efficient rate such that an diminution or increase would impose uncompensated losses on some individual.

Elasticity

The responsiveness of a dependent variable (for example, output or demand) to changes in one of the variables determining it (for example, an input, price or income), the others remaining constant. It may be positive or negative. Numerically it is given by

$$\text{elasticity} = \frac{\% \text{ change in dependent variable}}{\% \text{ change in determining variable}}$$

Equity

While efficiency is one ethical imperative in the design and operation of health services, equity is the second major consideration. It is not necessarily to be identified with equality, but relates in general to ethical judgments about the fairness of income and wealth distributions, cost and benefit distributions, accessibility of health services, exposure to health-threatening hazards, etc. Horizontal equity refers to the fairness in the treatment of apparent equals (e.g. persons with the same income). Vertical equity refers to fairness in the treatment of apparent unequals (e.g. persons with different incomes).

Expenditures on health care

The total expenditures (public and private) on health care services in a country (or on/by a client group) over a period of time.

External effects

These relate to the consequences of an action by one individual or group as they fall on others. There may be external costs and external benefits. Some are pecuniary, affecting only the value of other resources (as when a new innovation makes a previously valuable resource obsolescent), some are technological, affecting physically other people (communicable disease is a classic example of this type of externality) or utility affecting the subjective values of others (as when, for example, one person feels sympathy and distress at the sickness of another, or pleasure at his recovery. This is sometimes known as a "caring" externality).

Extra billing

A practice whereby doctors are reimbursed for their fees by an insurance agency according to an agreed schedule but charge the patient an additional amount. Depending on administrative arrangements, the patient may have to pay the full fee and may then be reimbursed by the insurance agency in the amount as stated on the fee schedule.

Factor of production

See inputs. Often classified into land, labor, and capital.

Fee-for-service
A method of remunerating professionals (especially medical doctors) according to an agreed fee-schedule specifying what is payable for each item of service supplied. It is to be distinguished from (though it may be used in conjunction with) capitation and salaried means of remuneration.

Financial appraisal
A procedure for assessing options that is similar to cost-benefit analysis except that only the financial costs and benefits to an organization are considered, rather than social costs and benefits. See also discounting.

Financing health care
Typical aspects of finance that are examined by health economists include: tax financing, subsidisation of access to health care, income redistribution, insurance (public and private) and their consequences for efficiency and patterns of use of services.

Health
According to the World Health Organization, a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Less stargazing notions are usually embodied in practical work. See health status.

Health care
Services provided to promote health, prevent, alleviate or eliminate ill-health.

Health care expenditures
See expenditures on health care.

Health economics
The application of economic theory to phenomena and problems associated with health. Topics include, among others, the meaning and measurement of health status, the production of health and health services, the demand for health and demand for health services, cost-effectiveness and cost-benefit analysis in the health territory, health insurance, the analysis of markets for health services, health service financing, disease costing, option appraisal in health services, manpower planning, the economics of medical supply industries, the determinants of inequalities in health and health care utilization, hospital economics, health care budgeting, territorial resource allocation, methods of remuneration of medical personnel, economics of comparative health systems.

Health insurance
An arrangement by which the insurer pays contingent sums of money to the insured person or his service provider according to the terms of the insurance policy. See insurance.

Health maintenance organization

An HMO is a group of health care providers who offer an agreed comprehensive package of care to a subscriber for a prepaid premium. There is a great variety of forms of HMO organization and a great variety in the form of remuneration for physicians. See also preferred provider organization.

Health status

The measurement via some form of utility measure of a person's or group's state of health. Normally measured withrespect to activities of daily living, freedom from pain, anxiety, etc.

Human capital

The stock of human skills embodied in an individual or group. In value terms it is usually measured as the present value of the flow of marketed skills (for example, the present value of expected earnings over a period of time). It is determined by basic ability, educational attainment, and health status, among other things. See value of life.

Human resources

The treatment of human beings as inputs in the production of goods and services, in contrast to (though not to the exclusion of) their treatment as the ultimate end-purpose of health policies.

Incentives

The response of individuals (patients, doctors, etc.) to anything that relaxes any of the various financial and other limits on their ability to act as they prefer. Positive inducements to act in particular ways. Disincentives are negative inducements.

Inputs

The resources that are used in production processes. See production function.

Insurance

Health insurance consists of a contract between the client and the insurer to the effect that in the event of specified events occurring the insurer will pay certain sums of money either to the insured person or to the health service agency. By pooling risks the insurer is able to select premiums that actuarially (after allowances for other expenses, etc.) make it worthwhile for him. For the insured person, the advantage of insurance is that the probability of a large financial loss through lost earnings or expenses of medical care is exchanged for the certainty of smaller loss (the payment of a premium). See also, adverse selection, copayment, deductibles, loading, moral hazard.

Internal rate of return
That discount rate (see discounting) that makes the net present value of costs and benefits equal to zero. Thus, with B_t and C_t representing costs and benefits in year t, the annual internal rate of return is r* in the formula:

$$0 = \sum_{t=0} \frac{B_t - C_t}{(1+r^*)^t}$$

Interval scales
See utility

Investment appraisal
Same as option appraisal.

Loading
A term indicating that an insurance premium has administrative and other costs loaded on to it over and above the actuarially fair premium, which in principle is the expected cost of health care multiplied by the probability of that care being utilised. See insurance.

Malpractice
Mistaken, careless or unethical medical practice for which the practitioner may be sued.

Manpower planning
The art of projecting the future demand and supply of particular types of labor so that appropriate policies may be adopted in the short term as regards training and education to ensure that future supplies are adequate for demands deemed suitable to be met.

Marginal cost or benefit
The additional cost or benefit from increasing the rate or volume of an activity. Mathematically it is the first derivative of cost or benefit with respect to the (continuous) variable in question.

Marginal product
The increase in output obtained by increasing the rate of use of one input. See production function.

Moral hazard
This is of two types. One refers to the effect that being insured has on behaviour such that it increases the probability of the event insured against occurring. The second derives from the price-elasticity of demand: being insured reduces the patient's price of care and hence leads to an increase in demand by insured persons. See elasticity.

Morbidity
A synonym for illness, often proxied by the frequency of patient contact with a physician. Morbidity rates are calculated in a manner similar to that for the mortality rate - especially cause- (or disease) specific mortality rates.

Mortality rate
The crude mortality rate (per 1,000) is the total number of deaths per year divided by the population at mid-year times 1,000. The age-specific mortality rate is the mortality rate for a specific age group (e.g. 65 years and older). The sex-specific mortality rate is the mortality rate for males or females. The age- and sex-adjusted rates, that are weighed according to the proportion of each group in the population. The disease- or cause-specific mortalityrate is the annualnumber of deaths from the particulardisease divided by the mid-year population times 1,000.

Need for health care
An instrumental notion to the effect that health care is necessary for the achievement of some preferred health state.

Objectives
The aims or end-states that are sought in health systems or parts of systems. They may be cast in rather general forms such as "to maximise utility" or more specifically in terms of directly measurable achievement (e.g. number of patients successfully discharged). Useful statements of objectives are normally cast in terms of outputs to be achieved or net benefits to be maximised. A characteristic of most planning systems is that objectives are stated, with dates set for their accomplishment, and methods of monitoring progress identified.

Opportunity cost
The value of a resource in its most highly valued alternative use. In a world of competitive markets in which all goods are traded, and where there are no market imperfections, opportunity cost is revealedby the prices of resources. Where these stringent conditions are not met opportunity cost and market prices can diverge and shadow-prices may be estimated to measure the former. Identificationof opportunity cost is a skilled art that can be applied only in the context of a particular decision which enables one to identify the consequences of alternative courses ofaction. At best, market prices can reveal the opportunity cost of resources in their most highly valued uses to people other than the decision taker in question, as measured by what he must pay to bid resources away from others. The opportunity cost of using resources one already owns is not usually revealed in market prices since the best alternative may be an alternative use in one's own organisation. In such cases, opportunity costs needto be elicited by discussion and judgment, and may not be readily put in monetary terms. Opportunity costs should not be confused with transfer payments.

Option appraisal
The use of cost-benefit analysis and related techniques to select between alternatives and assess the desirability of one relative to another.

Ordinal utility
See utility.

Output
The effects produced by production. Changes in health status are the ultimate output of the health service production function. However, sometimes more proximate throughput measures are used such as "patients discharged". In general, the use of inputs as measures of output is not recommended since the practice begs the question as to the nature and amount of output that the inputs may generate, particularly at the margin.

Output budgeting
A method of presenting allocated sums of money according to the outputs or objectives that the resources are directed towards. It is in distinction to traditional budgets that focus on input classifications like "wages and salaries", "capital expenditure", "equipment". Ideally, output budgeting transcends the boundaries of particular agencies, so that a complete picture of the resources devoted to a particular end is obtained. Cf. programme budgeting.

Overutilization
See utilization.

Pareto-efficiency
See efficiency.

Physician-induced demand
See supplier-induced demand.

Planning-programming-budgeting-system
See output budgeting and programme budgeting.

Preferred provider organization
A PPO differs from a health maintenance organization in that (a) the providers are paid not by the prepaying subscriber as with an HMO but by an insurance company or employer on a fee-for-service basis and (b) patients are usually able to avail themselves of non-PPO providers though with substantial copayments.

Prepayment
Payment by the individual to the provider in advance of receiving (or needing) treatment.

Present value
See discounting.

Production function
A technical relationship between the inputs and the outputs or out comes of any procedure or process sometimes referred to as the "technology matrix". Thus a production function may relate the maximum number of patients that can be treated in a hospital over a period of time to a variety of inputs like doctor and nurse hours, beds, etc. For econometric purposes the relationship is usually postulated to be in a particular mathematical form, of which one is the so-called Cobb-Douglas production function, $X = kA^aB^b$ where X is the rate of output (or throughput of clients), k, a and b are positive constants, and A and B are rates of two inputs. The production function specifies efficient combinations of inputs required at each rate of output, viz, the fewest of each needed to produce that output. (See efficiency). Depending on the values of parameters like a and b an equal proportionate increase in all inputs may entail either a larger, smaller or equal increase in output. This corresponds to increasing, decreasing or constant returns to scale.

Professional standards review organizations
PSROs were mandated under United States Public Law 92-603 in order to promote cost-containment in hospitals by reducing overutilization (see utilization) while maintaining "proper quality of care". PSROs are locally based vetting agencies responsible for conducting reviews of the quality and appropriateness of hospital services.

Programme budgeting
Similar to output budgeting except that the basis for classificationisthe targeted client group,e.g.maternity care, child care, care of the elderly.

Prospective reimbursement
Use by insurers: a method of reimbursing health service providers (especially hospitals) by establishing rates of payment in advance which are paid regardless of the costs in actual individual cases.

QALY
See quality of life.

Quality of life
An index of the quality of a year of life, usually measured by a utility number that has been constructed in a fashion described under utility and embodying the value judgments of selected judges. (QALY = quality adjusted life year).

Rate of return
The rate of discount (see discounting) that makes the present value of a stream of money costs and benefits over time equal to zero.

Ratio scales
See utility.

Recurrent cost
Expenditures of opportunity costs that occur on a regular (say annual) basis rather than being incurred once-and-for-all.

Resources
Variously used to refer to factors of production, inputs or produced goods.

Returns to scale
See production function.

Risk-benefit analysis
A limited form of cost-benefit analysis that examines the benefits and risks of a particular procedure or alternative procedures.

Roemer's law
The empirical assertion that hospital bed supply creates its own demand.

Robustness
The extent to which a service development etc. is likely to prove efficient (e.g. through being flexible) even if parameters change. It is one desideratum by which options may be ranked. Whereas sensitivity analysis examines the sensitivity of the conclusions of an appraisal to variations in assumptions, robustness is a measure of the flexibility of an option in a changing world.

Sensitivity analysis
A procedure for testing the responsiveness of key variables in option appraisal to changes in any assumptions, data inaccuracies, etc. in their computation.

Shadow price
A money value applied to a cost or benefit where there is none revealed by any market or where market-revealed prices are deemed to be imperfect reflections of benefit or opportunity cost. It is a technique commonly met in cost-benefit analysis and cost-effectiveness analysis.

Social accounts
Used both to describe the formal systems of national accounts that measure economic activity in a country over a period of time and also to describe a wider set of statistics that embrace nonfinancial entities like life expectation, health status, environmental pollution, crime rates, etc.

Social cost or benefit

Social costs (or benefits) are the sum of private and external costs (or benefits). Social costs (or benefits) include private costs (orbenefits) together with any other effects that may create costs(or benefits) for other members of the community. Social costs are all opportunity costs. Thus the social cost of a medical procedure will include its effects on household and other sectors and not just the costs that are private to a hospital or clinic.

Social decisions approach

See value of life.

Standard gamble

A method of measuring health status (or some aspects of quality of life) using expected utility theory. It proceeds by asking an appropriate panel of judges to rank the entities to be measured. Any two of these are then assigned numbers that preserve their relative ordering (any numbers will do). A less preferred third entity is then offered each judge in uncertain combination with the more preferred entity and each is asked to say whether he prefers the uncertain prospect to the certainty of the less preferred of the initial two entities. The probability in the uncertain prospect is adjusted until the judge is indifferent between it and the certain prospect, at which point the judge will haveimplicitly assigned a numerical value to the third entity. In this way many entities can be measured on interval scale (see utility for an explanation of this). Thus, if H(.) denotes the index of health status, and three styles of living are ranked $H(A) > H(B) > H(C)$. Then letting $H(A) = 4$ and $H(B) = 2$, the value for H(C) can be found by adjusting p (the probability) until the following equation holds:

$$p\,H(A) + (1-p)\,H(C) = H(B).$$

If, in a trial, $p = 0.4$, then the values are $H(A) = 4$, $H(B) = 2$ and $H(C) = 2/3$.

Substitution in production

The common property of most health and other production functions that one input may be replaced by some of another without output changing.

Supplier-induced demand

The effect that doctors, as providers of services, may have in creating more patient demand than there would be if they acted as perfect agents for their patients. Fee-for-service is often held to encourage unnecessary supplier-induced demand, though the evidence for this is hotly contested. See agency relationship.

Target income hypothesis
A hypothesis that physicians (and possibly others) have a target income (which need not be fixed over time) which their rate and style of work is adjusted to achieve, given a fee schedule specifying the fee per service provided.

Technology matrix
See production function.

Test discount rate
The discount rate required by government to be used in public service. See option appraisal.

Time price
Reflects the idea that money prices are not the only "barriers" to access to health services. Just as money price and the rate of use are negatively associated, so is time price - for example the time spent travelling to a facility - and the rate of use. The direct cost of travelling also plays a similar role.

Timing of costs and benefits
See discounting.

Trade-off
The idea that every individual will voluntarily sacrifice some of one good or service in exchange for a sufficient increase in the amount of some other. In production functions the idea that some of one input can be sacrificed with no loss of output if there is a sufficient increase in some other input.

Transfer payment
A transfer of purchasing power from one group (for example, taxpayers) to another (for example, social security beneficiaries). Not to be confused with opportunity cost since transfer payments do not measure the most highly valued alternative use of resources, human or non-human.

Uncertainty
Usually applied to future events, costs and benefits. Sometimes attempts to "quantify" it are made by assigning probabilities based on past experience or derived by judgments of various kinds. Sometimes alternative scenarios of the future are devised. Out of the infinity of possible futures, the art lies in trying to narrow down the range to a manageable set of imaginable possibilities that, between them, encompass what are seen as the main characteristics of these possibilities. The reduction of uncertainty about the financial consequences of ill-health (health care expenditures and loss of earnings due to sickness) is the principal advantage of and rational for health insurance. See insurance.

Unquantifiable costs and benefits
See opportunity cost and benefit

Utility
The assigning of numbers to entities (usually benefits) according to a rule. This enables the entities to be quantified and ranked according to preference, desirability or choice. The numbers so obtained are what are called utilities. There are three common scales of measurement: ordinal, in which only the rank order is revealed and any numbers will serve that preserve the correct order; interval, in which - like temperature measurement - the ratios of intervals between the points on the scale are the same for each set of possible numbers; and ratio, in which - like measures of weight or distance - zero means "none" and "twice as much" means the same for each set of possible numbers. The latter two are both forms of cardinal utility. The table below illustrates the three kinds of utility measurement for the 4 entities A, B, C and D (which may, for example, correspond to health states, or diseases).

Possible Scalings

	Ordinal			Cardinal			
				interval(1)		ratio(2)	
Entity	(a)	(b)	(c)	(a)	(b)	(a)	(b)
A	1	0.5	-16	0	32	1.61	1.0
B	2	10.0	-1	50	122	3.22	2.0
C	3	15.0	0	60	140	4.83	3.0
D	4	217.0	40	100	212	8.05	5.0

Note: (1) (b)=32+1.8(a) (2) (b)=0.625(a)

Utility function
A mathematical function that relates utility to the rate of consumption of various goods and services or, in some sophisticated cases, to the characteristics of consumer goods and services.

Utilization
The intensity of use of medical resources per period. Overutilization is use in excess of some optimal, preferred, stipulated (etc.) rate: the bench-mark implied varies from context to context and the reader should be alert to its ambiguity.

Value
In economics usually taken as the maximum amount that an individual or group is willing to pay for a particular benefit. Marginal value is the value of marginal benefit: the maximum amount individuals are willing to pay for an increment of benefit. Value in exchange is a term sometimes used to describe the market value of traded goods or services. Value in use is a

term sometimes used to describe the value of the total benefit. The difference between value in use and value in exchange is consumers' surplus.

Value judgment

An ethical opinion made either implicitly or explicitly that a particular course of action, institutional arrangement, and so on ought to be implemented, or is itself good. For example, the judgment that consumers' willingness to pay ought to determine the allocation of health care services is a value judgment. The judgment that the location and type of services actually provided is determined by willingness to pay is not a value judgment. Option appraisals typically involve many kinds of judgment, only some of which are judgments of value.

Value of life

Reduced mortality/increased life-expectancy is a common benefit of health programs whose appraisal will sometimes require a value to be placed on such benefits. There are broadly three approaches. The human capital approach, which assesses the value as the present value of expected future earnings. This has been widely discredited partly for its partial nature and partly because of the discrimination it implies against the very young, the old, females, chronic sick, etc. The second, social decisions, approach infers values from decisions made in the public sector: for example if a programme to introduce child-proof bottle caps for drugs at a cost of $50 per expected life saved is not adopted, then it is inferred that the average value of life for children at risk was not greater than $50. Its advantage is mainly in exposing the apparent inconsistencies in public decision making. The third approach enquires experimentally about the value placed by individuals on reductions in the size of the risk of death they confront with respect to any particular hazard. This approach is that which is most consistent with the economic concept of efficiency.

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